



## Staff Report to the Planning Commission

Application Number: **09-0035**

**Applicant:** Clifford & Lise Bixler  
**Owner:** Clifford & Lise Bixler  
**APN:** 026-211-19

**Agenda Date:** March 24, 2010  
**Agenda Item #:** 8  
**Time:** After 9:00 a.m.

**Project Description:** Proposal to divide an existing 1.5-acre parcel into 9 parcels, demolish an existing single-family dwelling and construct 9 new town homes. Requires approval of a Tentative Map, Residential Development Permit, Coastal Development Permit, a Roadside/Roadway Exception, Soils Report Review, Archaeological Site Review, and Preliminary Grading Review to grade approximately 733 cubic yards.

**Location:** Property located on the west side of 7<sup>th</sup> Avenue at Volz Lane (1175 7<sup>th</sup> Avenue)

**Supervisory District:** 3rd District (District Supervisor: Neal Coonerty)

**Permits Required:** Subdivision, Residential Development Permit, Coastal Development Permit, Roadway/Roadside Exception

**Technical Reviews:** Soils Report Review, Archaeological Site Review, Preliminary Grading Review

### Staff Recommendation:

- Certification of the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act.
- Approval of Application 09-0035, based on the attached findings and conditions.

### Exhibits

A.	Project plans	<i>Attachment 3 through 6: Technical Reviews</i>
B.	Findings	<i>Attachment 6: Drainage Report and Calculations</i>
C.	Conditions	
D.	Mitigated Negative Declaration (CEQA Determination)	<i>Attachment 7: Archeological Survey</i> <i>Attachment 8: Biotic Site Assessment</i>
E.	Initial Study with attachment; including: <i>Attachment 1: Assessor's Parcel, Location, Zoning, General Plan Maps</i>	<i>Attachment 9: Arborist's Reports</i> <i>Attachment 11: Comments &amp; Correspondence</i> <i>Attachment 12: Will Service Letter - Santa Cruz City Water Department</i>

### Parcel Information

Parcel Size: 63,360 square feet  
Existing Land Use - Parcel: Single-family residential  
Existing Land Use - Surrounding: Single and multi-family residential; commercial  
Project Access: 7<sup>th</sup> Avenue  
Planning Area: Live Oak  
Land Use Designation: R-UM; O-U (Urban Medium Residential; urban open space)  
Zone District: RM-4 (Multi-family residential - 4,000 square foot minimum site area)  
Coastal Zone: ☒ Inside ☐ Outside  
Appealable to Calif. Coastal Comm. ☐ Yes ☒ No

### Environmental Information

Geologic Hazards: Not mapped/no physical evidence on site  
Soils: Geotechnical report indicates low potential for liquefaction. Near-surface soils found to be highly expansive, therefore overexcavation and recompaction will be required to provide competent material  
Fire Hazard: Not a mapped constraint  
Slopes: Riparian corridor characterized by moderate slopes, however no development is proposed or permitted within the corridor  
Env. Sen. Habitat: Riparian corridor associated with Arana Gulch located to rear of parcel, however no development is proposed or permitted within the corridor  
Grading: 733 cubic yards of grading is proposed  
Tree Removal: No trees proposed to be removed  
Scenic: Not a mapped resource, project visible from Arana Gulch greenbelt  
Drainage: Proposal includes a retention and infiltration system to maintain pre-development runoff rates.  
Archeology: Assessment performed, no resources found

### Services Information

Urban/Rural Services Line: ☒ Inside ☐ Outside  
Water Supply: Santa Cruz City Water  
Sewage Disposal: Public  
Fire District: Central Fire Protection District  
Drainage District: Zone 5

## **History**

The parcel is currently developed with a single-family dwelling, constructed in the early 1920s.

In 2006 the subject parcel and three neighboring parcels (7<sup>th</sup> Avenue site) were included in a list of candidate sites for rezoning to high-density residential to address the state Housing and Community Development Department requirement to create additional opportunities for affordable housing. In 2008, the 7<sup>th</sup> avenue site was included in a Development Review Group (DRG) to evaluate the resources and constraints to possible rezoning of the parcels to 20 dwelling units per acre. The evaluation included reviews of riparian resources, an archeological assessment, and geotechnical studies. On April 20, 2008 the Board of Supervisors deleted the subject parcel from the list of potential affordable housing sites and the DRG was withdrawn.

On February 06, 2009 the property owner submitted the subject application for a 9-unit townhouse project.

## **Project Setting**

The subject parcel is 1.5 acres in area and is currently developed with a single-family dwelling built in the early 1920s. The property is located on 7<sup>th</sup> Avenue, a County-maintained road, and is adjacent to the City of Santa Cruz. The site is located within the Coastal Zone and all of the proposed development is outside of the Coastal Appeals Jurisdiction.

The surrounding parcels on the west side of 7<sup>th</sup> Avenue are zoned RM-4 (multi-family residential), while the zoning to the east is a mixture of RM-4-MH (mobile home park), R-1-6 (single-family residential) and RM-3 (multi-family residential). The immediately adjacent lots are developed with multi-family housing to the north, single-family residence and an adult care facility to the south. A mobile home park occupies the lot directly across 7<sup>th</sup> Avenue.

The majority of the parcel is comprised of flat topography that gradually slopes to the west toward Arana Gulch. The riparian corridor associated with the stream contains slopes of over 30%

7<sup>th</sup> Avenue is improved with curb, gutter and sidewalk on both sides of the street. The site contains a 72-inch redwood tree within the 7<sup>th</sup> Avenue right-of-way. Native and non-native grasses characterize the majority of the area proposed for development, while blackberry and other non-native vegetation exist along the riparian corridor. Two mature walnut trees are located on the neighboring parcel to the north in close proximity to the shared property line.

## **Project Description**

The project consists of demolishing the existing 1,048- square foot single-family dwelling and creating 9 townhouse parcels, ranging from 1,430 to 1,708 net developable square feet in area. One unit will be designated as a Measure J unit. Parcel A is proposed for common areas and public utilities easements and will include the access road and parking areas, as well as the riparian corridor. Parcel B consists of the 2,445 square feet to be dedicated to the County along the 7<sup>th</sup> Avenue right-of-way.

The proposed development would be accessed via a single private driveway off 7<sup>th</sup> Avenue. The interior road is 24 feet wide, including a 4-foot pedestrian pathway that extends from 7<sup>th</sup> Avenue to the rear of Building C.

No trees will be removed as a part of the project.

The project includes about 733 cubic yards of grading, primarily to mitigate the presence of expansive clay soils. The soil presents drainage challenges and a retention and infiltration system has been designed to ensure that post-development runoff will maintain pre-development rates and also to protect the Arana Gulch riparian corridor from accelerated erosion or sedimentation.

### **Zoning & General Plan Consistency**

The subject property is a 1.5-acre square foot lot, located in the RM-4 (Multi-family residential - 4,000 square feet per dwelling unit) zone district, a designation which allows multi-family residential uses. The proposed project complies with all of the applicable site standards for the RM-4 zone district, as shown in the table below:

	Required per County Code 13.10.323(b) RM-4 District	Proposed Site Standards
Front Yard	15'	20'
Side Yards	5' & 5'	5' & 8'
Rear Yard	15'	In excess of 100'
Lot Coverage	40%	13.9%
Floor Area Ratio	50%	23%
Maximum Height	28'	28'

The proposed 9-unit townhouse development is a principal permitted use within the zone district and the project is consistent with the site's (R-UM) Urban Medium Residential General Plan designation, as shown in the table below:

Gross Area	(E) Sidewalk Easement/ROW	Riparian Woodland	Net Developable Area	Units Proposed	R-UM Required Density	Proposed Project Density
1.50 ac.	0.05 ac	0.57 ac	0.88 ac	9	7.3 to 10.8 units per acre	10.23 units per acre

### **Access/Roadways**

The proposed townhouse development will be accessed via a private driveway off 7<sup>th</sup> Avenue, which is an existing County road. 7<sup>th</sup> Avenue is an arterial improved with curb, gutter and sidewalks on both sides of the road. All required improvements shown in the plan line for 7<sup>th</sup> Avenue have been installed

The interior access road will be a private roadway designated as Public Utility Easements and Common Area to be maintained by the Homeowners Association. Due to the number of

(per the County Design Criteria) would normally apply; however an exception is warranted in this case in that two 10-foot travel lanes are adequate for the private, interior roadway that will handle low volume residential traffic. In addition, the site is only 81.5 feet wide. The roadway has been reviewed and approved by the Road Engineering Section of the Department of Public Works as well as by the Central Fire Protection District.

It is worth noting that the initial project design proposed gaining an easement from the adjacent property to the north for the purpose of sharing the existing access and reducing the overall paved section coming off 7<sup>th</sup> Avenue. Agreement could not be reached with the adjacent property owner however, necessitating separate access for the two properties.

### **Parking Plan**

Each of the 9 proposed townhomes has three bedrooms. County Code Section 13.10.552 requires 2.5 parking per 3-bedroom unit and guest parking at and additional 20% of the required parking per bedroom for multifamily dwellings as shown below:

Number of Bedrooms	Required spaces per unit	Proposed # units	Spaces Required
3	2.5	9	22.5
Guest Parking	20%	-	4.5
Total Parking			27
Spaces Proposed			28

The proposed parking plan is desirable for the development in that each unit will have a single-car garage for private secure parking. Although the number of compact spaces exceeds the 10% normally allowed, the plan provides 28 spaces rather than the 27 required. The trade-off of smaller-sized spaces for an extra space is consistent with the purpose of the parking regulations by providing greater site access.

### **Riparian Corridor**

The rear (western) portion of the property carries a General Plan designation of Urban Open Space, which is consistent with the location of the Arana Gulch riparian corridor. The Arana Gulch Corridor is classified as an urban arroyo per county code Section 16.30.030 and a 30-foot buffer with 10-foot building setback have been provided to protect the riparian area from proposed construction and related impacts. A stormwater retention, infiltration and dispersion pit is proposed within the required 30-foot riparian buffer. The drainage system design and location were reviewed and approved by Environmental Planning and Public Works staff in order to ensure compliance with both stormwater runoff and environmental resource protection policies. Grading for the drainage facility will be minimal and Environmental Planning staff will inspect the erosion control measures prior to the ground disturbing activities.

A condition of approval requires the erection of a split-rail fence to mark the location of the riparian buffer, which will restrict human access to the corridor, while allowing wildlife to continue to pass through the riparian area. Another condition of approval restricts the use of

exterior lighting, which may otherwise interfere with animal habitats associated with the corridor. Specifically, permanent outdoor lighting shall be shielded by design to minimize illumination of surrounding areas, excepting security lighting, which will be limited to yellow or sodium vapor bulbs.

Finally, the development will be conditioned to require the removal of invasive ivy species from trees located within the riparian corridor, which will help to extend the viability and improve the quality of the riparian habitat.

### **Grading and Drainage**

A geotechnical investigation was performed on the parcel in conjunction with the proposed subdivision (Attachment to Exhibit E). The investigation revealed the presence of expansive clay soils near the surface and recommends overexcavation to remove the expansive soil and replacement with imported non-expansive soils. The project is conditioned to require that the proposed construction adhere to all recommendations made in the geotechnical report prepared for the project. Approximately 733 cubic yards of overexcavation is proposed. Due to the proximity to the riparian corridor, the project is conditioned to require all earthwork to begin prior to August 15<sup>th</sup> of any year. No winter grading will be permitted on the site.

As stated, the soils on the site are primarily dense clay, which inhibits percolation. The proposed drainage system will route surface runoff to a retention and infiltration system adjacent to Arana Gulch. No removal of existing vegetation is permitted within the corridor and a pre-construction meeting will be held with the contractor, Public works staff and Environmental Planning staff to ensure that the drainage system is installed without negatively impacting the riparian corridor.

In addition to the retention trench at the rear of the property, an area drain will be excavated between Buildings B and C to provide an additional opportunity to capture stormwater runoff and provide onsite recharge. Drainage Calculations have been reviewed and accepted by the Department of Public Works Drainage Section staff to ensure that runoff will be held on site and will not exceed the capacity of existing offsite facilities, nor exceed pre-development runoff rates.

Per County Code Section 16.22.060, prior to Final Map recordation, the applicant will be required to submit final drainage and erosion control plans for review and approval by Public Works and Environmental Planning staff.

### **Design Review**

The exterior design of the townhouse development was reviewed for neighborhood compatibility and was determined to be appropriate for the parcel and consistent with the surrounding development. The materials are uniform; consisting of horizontal siding and, together with the moderate roof pitch design, effectively mirror the design of the adjacent single-family dwellings. The use of varying colors and fenestration will help create individuality among the four buildings. The colors are a combination of muted yellows and sage green, which will blend in with the surrounding environment. To improve the view from 7<sup>th</sup> Avenue, a trellis design was added along the northern wall of Building A.

The development is well under the 50% maximum floor area ratio allowed within the RM-4 district, therefore, the mass of the housing units will not be out of proportion to the total size of the parcel. The County Urban Designer has reviewed and approved the current design.

### **Local Coastal Program Consistency**

The proposed townhouse development is in conformance with the County's certified Local Coastal Program, in that the development is sited and designed to be visually compatible, in scale with, and integrated with the character of the surrounding neighborhood, which is largely multi-family residential in the near vicinity with single family dwellings and commercial uses nearby. Size and architectural styles vary, with single-story and two-story residential structures of various designs developed on nearby properties.

The project site is not located between the shoreline and the first public road and is not identified as a priority acquisition site in the County's Local Coastal Program. The Arana Gulch corridor does not provide public access to any coastal waters. Consequently the proposed project will not interfere with public access to the beach, ocean or other nearby body of water.

### **Historic Resource**

The existing single-family dwelling on the property was built around 1918 and is included in the County Historic Resource Inventory with a designation of NR-6. An NR-6 rated property is not subject to the provisions of the Historic Preservation Chapter of the County Code, but can be reevaluated periodically.

The structure *has* been evaluated several times, most recently on January 23, 2007, when the Board declined to designate the dwelling as a historic resource. Therefore, the demolition of the house has no effect on historic resources.

### **Environmental Review**

Environmental review has been required for the proposed project per the requirements of the California Environmental Quality Act (CEQA). The project was reviewed by the County's Environmental Coordinator on January 11, 2010. A preliminary determination to issue a Negative Declaration with Mitigations (Exhibit D) was made on January 21, 2010. The mandatory public comment period expired on February 16, 2010, with no comments received.

The environmental review process focused on the potential impacts of the project in the areas of riparian protection. Riparian resources were identified as an area of potential impact given the proximity of Arana Gulch, therefore mitigation measures are included as conditions of approval that will reduce potential impacts from the proposed development to a less than significant level.

## 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

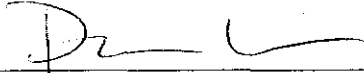
- Certification of the Mitigated Negative Declaration per the requirements of the California Environmental Quality Act.
- **APPROVAL** of Application Number 09-0035, based on the attached findings and conditions.

**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](http://www.co.santa-cruz.ca.us)**

Report Prepared By: 

Robin Bolster-Grant  
Santa Cruz County Planning Department  
701 Ocean Street, 4th Floor  
Santa Cruz CA 95060  
Phone Number: (831) 454-5357  
E-mail: [robin.bolster@co.santa-cruz.ca.us](mailto:robin.bolster@co.santa-cruz.ca.us)

Report Reviewed By: 

Paia Levine  
Principal Planner  
Santa Cruz County Planning Department



## Coastal Development Permit Findings

1. That the project is a use allowed in one of the basic zone districts, other than the Special Use (SU) district, listed in section 13.10.170(d) as consistent with the General Plan and Local Coastal Program LUP designation.

This finding can be made, in that the property is zoned RM-4 (Multi-family residential - 4,000 square foot minimum site area), a designation which allows residential uses. The proposed townhouse development is a principal permitted use within the zone district, consistent with the site's (R-UM) Urban Medium Residential General Plan designation. While a portion of the site is designated as (O-U) Urban open Space, no development is proposed to occur within this part of the parcel.

2. That the project does not conflict with any existing easement or development restrictions such as public access, utility, or open space easements.

This finding can be made, in that the proposal does not conflict with any existing easement or development restriction such as public access, utility, or open space easements in that no such easements or restrictions are known to encumber the project site.

3. That the project is consistent with the design criteria and special use standards and conditions of this chapter pursuant to section 13.20.130 et seq.

This finding can be made, in that the development is consistent with the surrounding neighborhood in terms of architectural style; the site is surrounded by lots developed to an urban density; the colors, muted yellow and sage green, are natural in appearance and complementary to the site; the development site is not on a prominent ridge, beach, or bluff top. The proposed roof pitch and horizontal siding mirror the design of adjacent single-family dwellings.

4. That the project conforms with the public access, recreation, and visitor-serving policies, standards and maps of the General Plan and Local Coastal Program land use plan, specifically Chapter 2: figure 2.5 and Chapter 7, and, as to any development between and nearest public road and the sea or the shoreline of any body of water located within the coastal zone, such development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act commencing with section 30200.

This finding can be made, in that the project site is not located between the shoreline and the first public road. Consequently, the townhouses and associated improvements will not interfere with public access to the beach, ocean, or any nearby body of water. Further, the project site is not identified as a priority acquisition site in the County Local Coastal Program.

5. That the proposed development is in conformity with the certified local coastal program.

This finding can be made, in that the structures are sited and designed to be visually compatible, in scale with, and integrated with the character of the surrounding neighborhood. Additionally, residential uses are allowed uses in the RM-4 (Multi-family residential - 4,000 square foot minimum site area) zone district of the area, as well as the General Plan and Local Coastal

Application #: 09-0035  
APN: 026-211-19  
Owner: Clifford & Lise Bixler

Program land use designation. Developed parcels in the area contain a mixture of multi-family dwellings, single family dwellings and an adult care facility. Size and architectural styles vary widely in the area, and the design submitted is not inconsistent with the existing range. In addition, the proposed project is not visible from the viewshed associated with Arana Gulch.

## Subdivision Findings

1. That the proposed subdivision meets all requirements or conditions of the Subdivision Ordinance and the State Subdivision Map Act.

This finding can be made, in that the project meets all of the technical requirements of the Subdivision Ordinance and is consistent with the County General Plan and the Zoning Ordinance as set forth in the findings below. The subject parcel is a legal lot and the existing multi-family residential zoning district and Urban Medium Residential General Plan designation are intended to create areas for medium density, multi-family development. The proposed development complies with all applicable RM-4 site standards and the project will create 10.2 dwelling units per net developable acre which is within the permitted range of 7.3 to 10.8 dwelling units per net developable acre for the R-UM General Plan designation.

2. That the proposed subdivision, its design, and its improvements, are consistent with the General Plan, and the area General Plan or Specific Plan, if any.

This finding can be made, in that this project creates 9 parcels with a minimum of 10.2 dwelling units per acre and is located in the Urban medium Residential (R-UM) General Plan land use designation; therefore the project is in compliance with the parcel's density requirements.

The project is consistent with the General Plan in that the necessary infrastructure is available to the site including water service, sanitation, nearby existing and future recreational opportunities, commercial services, Highway access, and public transportation. The land division is located off of 7<sup>th</sup> Avenue, a public right-of-way that provides adequate safe access and which has been fully improved to Public Works standards. The proposed land division is similar to the pattern and density of the surrounding residential development in the project vicinity.

3. That the proposed subdivision complies with zoning ordinance provisions as to uses of land, lot sizes and dimensions and any other applicable regulations.

This finding can be made, in that the use of the property will be multi-family residential, which is the principal permitted use in the RM-4 zone district, where the project is located. The proposed parcel configuration meets the minimum dimensional standards and setbacks for the zone district including 15-foot minimum setbacks from the east and west (front and rear) property lines and a minimum 5-foot setback from the side property lines. The density of the proposed 9-unit development is approximately 4,265 square feet per dwelling unit; therefore the project is consistent with the requirements of the RM-4 zone district.

4. That the site of the proposed subdivision is physically suitable for the type and density of development.

This finding can be made in that the developable portion of the site is relatively flat and preliminary grading plans, which minimize alteration of the natural topography of the site, were reviewed and approved by Environmental Planning staff. The proposed project could be

considered infill development in that it is surrounded by land developed to urban densities and the location on an arterial road is ideal for making use of existing public transportation routes.

The development is sited away from the riparian corridor at the western edge of the parcel and the project is conditioned to ensure that the corridor will be protected from future activities on the site. Therefore no environmental resources on the site will be adversely impacted by the proposed development.

5. That the design of the proposed subdivision or type of improvements will not cause substantial environmental damage not substantially and avoidable injure fish or wildlife or their habitat.

This finding can be made, in that the project will be conditioned to require mitigations, such as maintaining a 30-foot riparian buffer, removal of non-native invasive ivy species and prohibiting the removal of native vegetation within the riparian corridor. Additionally, a split-rail fence will be required to be constructed at the edge of the riparian corridor and outdoor lighting that illuminates riparian habitat shall be prohibited. The proposed townhouse development has received a mitigated Negative Declaration pursuant to the California Environmental Quality Act.

6. That the proposed subdivision or type of improvements will not cause serious public health problems.

This finding can be made, in that no private wells or on site septic systems are proposed as a part of the project. The Santa Cruz city Water District has issues a conditional will-serve letter for the propose 9-units and the property owner/applicant will be required to comply with all District requirements. In addition the property has received preliminary approval from the County Sanitation District to connect to existing sanitary sewer facilities.

7. That the design of the proposed subdivision or type of improvements will not conflict with easements, acquired by the public at large, for access through, or use of property within the proposed subdivision.

This finding can be made, in that there are no known easements for public access on or through the subject property.

8. The design of the proposed subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities.

This finding can be made, in that the parcel configuration is constrained by the narrow lot dimension, the presence of a large "heritage-type" tree at the front of the lot, and by the presence of the riparian corridor to the rear. No component of the project design restricts the use of *active* solar opportunities in the future.

9. The proposed development project is consistent with the Design Standards and Guidelines (section 13.11.070 through 13.11.076) and any other applicable requirements of this chapter.

This finding can be made, in that the proposed development was reviewed for neighborhood compatibility and was determined by the County Urban Designer to be an appropriate design for the parcel and consistent with the surrounding developments. The townhouses will incorporate the use of moderate roof pitch, horizontal siding and trellises to mirror the design of the adjacent single-family dwellings and to minimize the degree to which the easternmost units impact the view from 7<sup>th</sup> Avenue. Exterior colors and fenestration vary among the four buildings to create individuality. The colors will be a mixture of muted yellow and sage green. The development is well under the 50% maximum floor area ratio allowed within the RM-4 district; therefore the mass of the housing units will not be out of proportion to the total size of the lot.

Landscaping opportunities are limited because of the narrow lot configuration. However, the large redwood tree at the front of the lot will be maintained, as will the riparian vegetation to the rear of the property.

### **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, in that the project is located in an area designated for multi-family residential uses and is not encumbered by physical constraints to development due to the distance from the riparian corridor at the western edge of the lot from any areas of development. Construction will comply with prevailing building technology, the California Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources.

The proposed townhouse development will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structures meet all current setbacks that ensure access to light, air, and open space in the neighborhood.

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 use of the property will be multi-family residential with unit densities that meet the minimum standards for the RM-4 zone district where the project is located, and the project will be consistent with the required site standards of the RM-4 zone district.

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 division of land, its design, and its improvements, will be consistent with the General Plan. The project creates a 9-unit multi-family residential development and is located in the Urban medium Density Residential (R-UM) General Plan designation which allows a density of 7.3 to 10.8 units per net developable acre. The proposed project is consistent with the General Plan in that the density of the townhouse development will be approximately 10.2 units per net developable acre. The portion of the lot designated as Urban Open Space (O-U) will not be developed or negatively impacted by the proposed subdivision and construction of townhouses.

The project is consistent with the General Plan in that the full range of urban services is available, including public water and sewer service. Parcels will be accessed by 7<sup>th</sup> Avenue and the proposed interior access drive requires an exception to the County Design Criteria due to the narrow lot width, lack of necessary roadside improvements and the adequacy of the proposed 24-foot road width. The proposed interior roadway design provides adequate and safe vehicular access.

The subdivision, as conditioned, will be consistent with the General Plan regarding infill development, in that the proposed residential development will be consistent with the pattern of surrounding developments and the design of the proposed structures are consistent with the character of similar developments in the surrounding neighborhood. Specifically, parcels across

the street to the east are developed with condominiums and a mobile home park, while other multi-family developments of both single and two-story design have been constructed within 500 feet of the proposed site.

The proposed townhouse development 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 development will comply with the site standards for the RM-4 zone district (including setbacks, lot coverage, floor area ratio, height, and number of stories) and will result in a structure consistent with a design that could be approved on any similarly sized lot in the vicinity.

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

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 while the project will create an increase in traffic on nearby roads and intersections, given the moderate number of new trips (63 daily trips) created by the development of nine new townhouses, the increase will not cause the Level of Service at any nearby intersection to drop below Level of Service D. Therefore, the increase in traffic is not considered to be significant.

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, in that the project site is located in a mixed neighborhood containing single-family residences, multi-family residences, commercial/institutional development and a mobile home park. Surrounding physical design consists of a variety of architectural styles, and the proposed multi-family residential development is consistent with the existing styles and the use intensity and density of the neighborhood.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed townhouses are sited and designed to be visually compatible, in scale with, and integrated with the character of the surrounding neighborhood. The surrounding neighborhood contains single-family residences, multi-family residential developments and public facilities constructed with a variety of architectural styles, mostly reflective of the vernacular style popular at the time at which each structure was constructed. Parcels directly adjacent to the subject property consist of older single-family and multi-family developments utilizing an older bungalow-style architecture. The proposed development reflects a design style that is a consistent, but updated version of the surrounding styles, with the use of horizontal siding, low roof pitch and broad eaves.

The County Urban Designer has reviewed the preliminary architectural plans and has determined

Application #: 09-0035  
APN: 026-211-19  
Owner: Clifford & Lise Bixler

the proposed architectural plans and has determined the proposed architectural style and the use of natural materials and earth tone colors to be appropriate for the urban, coastal neighborhood.



### **Roadway/Roadside Exception Findings**

1. The improvements are not appropriate due to the character of development in the area and the lack of such improvements on surrounding developed property.

This finding can be made, in that, as per County Design Criteria, full urban local street improvements consist of a 56-foot right-of-way with parking sidewalks and landscaping on both sides, which would not be appropriate for the private, common area, interior roadway that is proposed to provide access to 9 townhouse units. The narrow width of the lot, at 81.5 feet precludes development of a right-of-way to County Design Criteria standards. The proposed roadway varies from the Design Criteria in terms of width and improvements, with a 22-foot wide right-of-way, no sidewalks, formal parking, or landscaping on either side of the roadway. Lots in the vicinity that are similarly narrow in width are developed with private driveways that are between 10 and 18 feet wide.

The proposed development instead provides a designated parking lot and landscaping elsewhere along the property boundaries to provide visual interest and buffering from neighboring uses. A Roadway/Roadside Exception is required in order to allow interior roadway variations, which are considered as appropriate within the proposed development, as per county code Section 15.10.050(f)(1).

## Conditions of Approval

### Land Division 09-0035

Applicant: Clifford & Lise Bixler

Property Owner: Clifford & Lise Bixler

Assessor's Parcel Number: 026-211-19

Property Address and Location: Property located on the west side of 7th Avenue at Volz Lane  
(1175 7th Avenue).

Planning Area: Live Oak

---

Exhibit A. Tentative Map and Preliminary Improvement Plans – prepared by Whitson Engineers, Sheets 1 and 7, dated February 2010, sheets 2 through 6, dated October 2009, Architectural and Floor Plans – prepared by Allen De Grange, dated May 2009, Sheet T-1, dated March 2009, Sheets A-3, A-4, A-6 and A-7 dated September 2009, Preliminary Landscape Plans prepared by Ellen Cooper, revised 9/30/09

---

All correspondence and maps relating to this land division shall carry the land division number noted above.

- I. Prior to exercising any rights granted by this Approval, the 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. Pay the required fee to the Clerk of the Board of the County of Santa Cruz for posting the Mitigated Negative Declaration as required by the California Department of Fish & Game mitigation fees program.
- II. A Final Map for this land division must be recorded prior to the expiration date of the tentative map and prior to sale, lease or financing of any new lots. The Final Map shall be submitted to the County Surveyor (Department of Public Works) for review and approval prior to recordation. No improvements, including, without limitation, grading and vegetation removal, shall be done prior to recording the Final Map unless such improvements are allowable on the parcel as a whole (prior to approval of the land division). The Final Map and Improvement Plans shall comply with the following requirements:
  - A. The Final Map and Improvement Plans shall be in general conformance with the approved Exhibit A and shall conform to the conditions contained herein. All

other State and County laws relating to improvement of the property, or affecting public health and safety shall remain fully applicable. Any changes from the approved Exhibit A, including but not limited to the Tentative Map, Preliminary Improvement Plans, or the attached exhibits for architectural and landscaping plans, must be submitted for review and approval by the Planning Department. Changes may be forwarded to the decision making body to consider if they are sufficiently material to warrant consideration at a public hearing noticed in accordance with Section 18.10.223 of the County code. Any changes that are on the final plans which do not conform to the project conditions of approval shall be specifically illustrated on a separate sheet and highlighted in yellow on any set of plans submitted to the County for review.

- B. This land division shall result in no more than 9 residential parcels and townhouse units.
- C. The minimum parcel area shall be 4,000 square feet of net developable area per dwelling unit.
- D. Prior to Final Map recordation, the following fees must be paid:
  - 1. Park dedication in-lieu fees shall be paid for 9 multi-family dwelling units. These fees are currently \$750 per bedroom, but are subject to change.
  - 2. Child Care Development fees shall be paid for 9 multi-family dwelling units. These fees are currently \$36 per bedroom, but are subject to change.
  - 3. Drainage impact fees for common improvements will be assessed on the net increase in impervious area. The fees are currently \$1.06 per square foot and shall be assessed with the improvement plans.
  - 4. Live Oak Roadside Improvement fees shall be paid at a rate of \$1,918 per dwelling unit created.
  - 5. Live Oak Transportation Improvement fees shall be paid at a rate of \$1,918 per dwelling unit created.
  - 6. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district in which the project is located.
  - 7. Enter into a Certification and Participation Agreement with the County of Santa Cruz to meet the Affordable Housing Requirements specified by Chapter 17.10 of the County Code. This agreement must include the following statements:

- a. The developer shall provide one designated affordable unit for sale to moderate income households.
  - b. The developer shall pay in-lieu fees for the fractional equivalent of 0.35 units in accordance with the regulations and formulas as specified by Chapter 17.10 of the County Code. These fees are calculated as 0.35 of the average purchase price of the market-rate units.
- E. Prior to Final Map recordation, the following additional items must be submitted for review and approval;
  1. A letter of certification from the Tax collector's Office that there are no outstanding tax liabilities affecting the subject parcel.
  2. Evidence that all requirements of the Central Fire Protection District have been met.
  3. A copy of all required recorded easements (e.g. storm drain, sewer main, etc.). Maintenance of and access to these facilities should be determined jointly
  4. An electronic copy of the soils report and addendum in .pdf format. This document may be submitted on disk or emailed to [kent.edler@co.santa-cruz.ca.us](mailto:kent.edler@co.santa-cruz.ca.us).
  5. A recorded maintenance agreement with the County of Santa Cruz for the proposed retention/infiltration facility.
- F. Prior to Final Map recordation, the following shall be shown or noted on the plans;
  1. Parcel/building envelopes, building footprints, common area and building setback lines located according to the approved Tentative Map. The building envelopes shall meet the minimum setbacks for the RM-4 zone district of 15 for front yards, 5 feet for side yards and 15 feet for rear yards.
    - a. In addition to the Dedication Parcel shown on the Tentative Map, a 10-foot right-of-way dedication shall be shown, per requirements of the Road Engineering Section of the Department of Public Works.
  2. Show the net area of each lot to nearest square foot.
  3. Show all recorded easements.

4. Final plans shall reference the county accepted geotechnical report and include a statement that the project shall conform to the report's recommendations.
5. Comply with all requirements and pay all necessary fees of the Central Fire Protection district.
6. Include on the plans all signage and lighting proposed for location on the subject parcel. Plans shall show the exact location on site, an elevation of each freestanding sign and any associated sign lighting. Signage plan shall include entrance signs and shall comply with signage requirements of the California Building Code.
7. The following notes shall be included on the Final Map:
  - a. Construction, grading and development activities are prohibited in the riparian corridor and riparian buffer.
  - b. The project arborist shall remain on site to observe excavation activities in the vicinity of the 72-inch redwood tree.
  - c. Permanent outdoor lighting at the west end of the development shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).
  - d. Prior to Building Permit approval, all invasive ivy shall be removed within a 3-foot radius around the base of the trees located within the riparian corridor on the subject parcel.
8. In order to mitigate impacts to air quality, standard dust control Best Management Practices, such as periodic watering, the application of drain rock at the construction entrance, and covering spoils piles are required during construction to reduce impacts to a less than significant level.
9. The following requirements shall be noted on the Final Map as items to be completed **prior to obtaining a building permit** on lots created by this land division:
  - a. New parcel numbers for all of the parcels must be assigned by the Assessor's Office prior to application for a Building Permit on any parcel created by this land division.

- b. Lots shall be connected for water service to Santa Cruz City Water District. All regulations and conditions of the water district shall be met.
- c. Lots shall be connected for sewer service to Santa Cruz County Sanitation District. All regulations and conditions of the sanitation district shall be met.
- d. All future construction on the lots shall conform to the Architectural Floor Plans, Elevations, Colors and Materials Board depicted in the approved Exhibit A and as held on file for this permit and shall also meet the following additional conditions:
  - i. Notwithstanding the approved preliminary architectural plans, all future development shall comply with the development standards for the RM-4 zone district. Development on each parcel shall not exceed 40% lot coverage or 50% floor area ratio or other standard as may be established for the zone district.
  - ii. No fencing or walls shall exceed three feet in height within the required street facing yard setbacks, except as approved in this permit.
  - iii. A split-rail fence, no more than three feet in height, shall be erected at the edge of the 30-foot riparian buffer.
- G. Prior to Final Map recordation, submit and secure approval of engineered improvement plans from the Department of Public Works and the Planning Department for all roads, curbs, gutters, storm drains, erosion control, and other improvements required by the Subdivision Ordinance, noted on the attached tentative map and/or specified in these conditions of approval. A subdivision agreement backed by financial securities (equal to 150% of engineer's estimate of the cost of improvements), per Section 14.01.510 and 511 of the Subdivision Ordinance, shall be executed to guarantee completion of this work. Improvement plans shall meet the following requirements:
  - 1. All improvements shall be prepared by a registered civil engineer and shall meet the requirements of the County of Santa Cruz Design Criteria except as modified in these conditions of approval.
  - 2. Plans shall note that a plan review letter prepared by the project geotechnical engineer that states that the project plans conform to the report's recommendations will be required prior to building permit issuance. If building plans are submitted in phases, a plan review letter will be required with each building permit application regarding the specific construction to take place.

3. Plans shall note that drainage impact fees for parcel-specific improvements will be paid with building permit applications. Drainage impact fees are assessed on the net increase in impervious area. The fees are currently \$1.06 per square foot and will be assessed upon building permit issuance.
4. Plans shall note that all invasive ivy species shall be removed within a 3-foot radius around the base of the riparian trees on the subject parcel.
5. Pay all fees and meet all requirements of the Department of Public Works Stormwater Management Division.
6. A Roadside/Roadway Exception is approved for the interior project access road to vary from county standards with respect to the width of the right-of-way.
7. Final plans shall provide a thorough and realistic representation of all grading necessary to complete the project.
8. Submit a plan review letter prepared by the project geotechnical engineer stating that the plans comply with the report's recommendations.
9. Improvement plans shall include an operational erosion and sediment control plan prepared by a Certified Professional in Erosion and Sediment control. The plans must indicate how erosion, sediment and drainage will be controlled between October 15<sup>th</sup> and April 15<sup>th</sup>.
10. Plans shall note that grading for the site must start prior to August 15<sup>th</sup>, otherwise site grading must not commence until the following April 15<sup>th</sup>.
11. Submit a plan review letter from Ellen Cooper, the project arborist, which States that the plans are in conformance with the recommendations made in the arborist's report prepared for this site.
12. Meet all requirements and pay all required fees of the Santa Cruz County Sanitation District.

13. All new utilities shall be underground. All facility relocation, upgrades or installations required for utilities services to the project shall be noted on the construction plans. All preliminary engineering for such utility improvements is the responsibility of the owner/applicant. Pad-mounted transformers shall not be located in the front setback or in any area visible from public view unless they are completely screened by landscaping (underground vaults may be located in the front setback). Utility equipment such as gas meters and electrical panels shall not be visible from public streets or building entries. Backflow prevention devices must be located in the least visually obtrusive location.
14. All future development on the lots shall comply with the recommendations of the County approved geotechnical report.

III. All future construction within the property shall meet the following conditions:

- A. Prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend: applicant/owner, grading contractor supervisor, Santa Cruz County Environmental Planning staff, and project arborist. Any temporary construction fencing demarking the disturbance envelope, tree protection fencing, riparian buffer fencing, and silt fencing will be inspected at this time.
- B. Winter grading is not permitted on this site.
- C. Grading for this site must start prior to August 15<sup>th</sup>, otherwise site grading must not commence until the following April 15<sup>th</sup>.
- D. All work adjacent to or within a county road shall be subject to the provisions of chapter 9.70 of the County code, including obtaining an encroachment permit where required. Where feasible, all improvements adjacent to or affecting a County road shall be coordinated with any planned County-sponsored construction on that road. Obtain an Encroachment Permit from the Department of Public works for any work performed in the public right-of-way. All work shall be consistent with the Department of Public Works Design Criteria unless otherwise specifically excepted by these conditions of approval.
- E. No land disturbance shall take place prior to issuance of building permits (except the minimum required to install required improvements, provide access for County required tests or to carry out work required by another of these conditions).



- F. 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.
  - G. In order to mitigate impacts of nighttime lighting on the adjacent riparian habitat, permanent outdoor lighting at the west end of the development shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).
  - H. In order to mitigate impacts from dust on sensitive receptors in the project vicinity, standard dust control best management practices, such as periodic watering, the application of drain rock at the construction entrance, and covering spoils piles are required during construction to reduce impacts to a less than significant level.
  - I. Construction of improvements shall comply with the requirements of the geotechnical report prepared for this site. The project geotechnical engineer shall inspect the completed project and certify in writing that the improvements have been constructed in conformance with the geotechnical report.
  - J. All required land division improvements shall be installed and inspected prior to final inspection clearance for any new structure on the new lots.
- IV. 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.
- 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, its 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.
- E. Within 30 days of the issuance of this development approval, the Development Approval holder shall record in the office of the Santa Cruz county Recorder an agreement, which incorporates the provisions of this condition, or this development approval shall become null and void.

#### VI. Mitigation monitoring Program

The mitigation measures listed under this heading have been incorporated in the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. As required by Section 21081.6 of the California Public Resources Code, a monitoring and reporting program for the above mitigation is hereby adopted as a condition of approval for this project. This program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to section 18.10.462 of the Santa Cruz County Code.

- A. Mitigation Measure: Biotic Resources (Condition II.F.7)  
In order to mitigate impacts of nighttime lighting on the adjacent riparian habitat, permanent outdoor lighting at the west end of the development shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).
- B. Mitigation Measure: Air Quality (Condition II.F.8)  
In order to mitigate impacts from dust on sensitive receptors in the project vicinity, standard dust control best management practices, such as periodic watering, the application of drain rock at the construction entrance, and covering spoils piles are required during construction to reduce impacts to a less than significant level.

**AMENDMENTS TO THIS LAND DIVISION APPROVAL SHALL BE  
PROCESSED IN ACCORDANCE WITH CHAPTER 18.10 OF THE COUNTY CODE**

---

This Tentative Map is approved subject to the above conditions and the attached map, and expires 24 months after the 14-day appeal period. The Final Map for this division, including improvements plans, should be submitted to the County Surveyor for checking **at least 90 days** prior to the expiration date and in no event later than 3 weeks prior to the expiration date.

Approval Date: \_\_\_\_\_

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

---

Paia Levine  
Principal Planner

---

Robin Bolster-Grant  
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 Planning Commission, may appeal the act or determination to the Board of Supervisors in accordance with chapter 18.10 of the Santa Cruz County Code.



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
TOM BURNS, PLANNING DIRECTOR

### NOTICE OF ENVIRONMENTAL REVIEW PERIOD

#### SANTA CRUZ COUNTY

APPLICANT: Clifford and Lisa Bixler

APPLICATION NO.: 09-0035

PARCEL NUMBER (APN): 026-211-19

The Environmental Coordinator has reviewed the Initial Study for your application and made the following preliminary determination:

XX Negative Declaration  
(Your project will not have a significant impact on the environment.)

XX Mitigations will be attached to the Negative Declaration.

       No mitigations will be attached.

       Environmental Impact Report  
(Your project may have a significant effect on the environment. An EIR must be prepared to address the potential impacts.)

As part of the environmental review process required by the California Environmental Quality Act (CEQA), this is your opportunity to respond to the preliminary determination before it is finalized. Please contact Matt Johnston, Environmental Coordinator at (831) 454-3201, if you wish to comment on the preliminary determination. Written comments will be received until 5:00 p.m. on the last day of the review period.

Review Period Ends: February 16, 2010

Robin Bolster-Grant, staff planner

Phone: (831) 454-5357

Date: January 25, 2010

NAME: Bixler  
APPLICATION: 09-0035  
A.P.N: 026-211-19

### **NEGATIVE DECLARATION MITIGATIONS**

1. In order to mitigate impacts of nighttime lighting on the adjacent riparian habitat, permanent outdoor lighting at the west end of the development shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).
2. In order to mitigate impacts from dust on sensitive receptors in the project vicinity, standard dust control best management practices, such as periodic watering, the application of drain rock at the construction entrance, and covering spoils piles are required during construction to reduce impacts to a less than significant level.



## Environmental Review Initial Study

Application Number: **09-0035**

Date: January 11, 2010

Staff Planner: Robin Bolster-Grant

### I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

**APPLICANT:** Clifford & Lise Bixler

**APN:** 026-211-19

**OWNER:** Clifford & Lise Bixler

**SUPERVISORAL DISTRICT:** 3<sup>rd</sup> (Leopold)

**LOCATION:** The project is located on the west side of 7<sup>th</sup> Avenue at Volz Lane (1175 7<sup>th</sup> Avenue)

**SUMMARY PROJECT DESCRIPTION:** This is a proposal to divide an existing 1.5-acre parcel into 9 parcels of 1,625 to 1,708 square feet, demolish an existing single-family dwelling and construct 9 new town homes. Proposal also includes about 733 cubic yards of grading.

**ALL OF THE FOLLOWING POTENTIAL ENVIRONMENTAL IMPACTS ARE EVALUATED IN THIS INITIAL STUDY. CATEGORIES THAT ARE MARKED HAVE BEEN ANALYZED IN GREATER DETAIL BASED ON PROJECT SPECIFIC INFORMATION.**

<input checked="" type="checkbox"/> Geology/Soils	<input type="checkbox"/> Noise
<input checked="" type="checkbox"/> Hydrology/Water Supply/Water Quality	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Public Services & Utilities
<input type="checkbox"/> Energy & Natural Resources	<input type="checkbox"/> Land Use, Population & Housing
<input type="checkbox"/> Visual Resources & Aesthetics	<input type="checkbox"/> Cumulative Impacts
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Growth Inducement
<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Mandatory Findings of Significance
<input type="checkbox"/> Transportation/Traffic	

**DISCRETIONARY APPROVAL(S) BEING CONSIDERED**

<input type="checkbox"/> General Plan Amendment	<input type="checkbox"/> Grading Permit
<input checked="" type="checkbox"/> Land Division	<input type="checkbox"/> Riparian Exception
<input type="checkbox"/> Rezoning	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Development Permit	<input type="checkbox"/>
<input checked="" type="checkbox"/> Coastal Development Permit	<input type="checkbox"/>

**NON-LOCAL APPROVALS**

No other agencies are required to issue permits or authorizations

**ENVIRONMENTAL REVIEW ACTION**

On the basis of this Initial Study and supporting documents:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the attached mitigation measures have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

  
Matt Johnston

  
Date

For: Claudia Slater  
Environmental Coordinator

## **II. BACKGROUND INFORMATION**

### **EXISTING SITE CONDITIONS**

**Parcel Size:** 65,360 square feet

**Existing Land Use:** Low density residential

**Vegetation:** Area in the vicinity of the proposed project is vegetated non-native grasses and riparian vegetation.

**Slope in area affected by project:** 52,640 square feet (80%) 0 - 15% 12,720 square feet (20%) 30-50%

**Nearby Watercourse:** Arana Gulch, a perennial stream, is located at the western edge of the parcel.

### **ENVIRONMENTAL RESOURCES AND CONSTRAINTS**

**Groundwater Supply:** Portion of the parcel is Mapped. No development is proposed for this portion of the property.

**Water Supply Watershed:** No Mapped Resource

**Groundwater Recharge:** No Mapped Resource

**Timber or Mineral:** No Mapped Resource

**Agricultural Resource:** No Mapped Resource

**Biologically Sensitive Habitat:** Mapped riparian habitat. No development is proposed for this portion of the property.

**Fire Hazard:** Not Mapped

**Floodplain:** Portion Mapped. No development is proposed for this portion of the property.

**Erosion:** No evidence of past erosion.

**Landslide:** Not Mapped; relatively flat development area.

**Liquefaction:** Mapped areas of moderate potential; geotechnical report states low potential (Attachment 3)

**Fault Zone:** No Mapped Fault Zone

**Scenic Corridor:** None

**Historic:** No Mapped Resource

**Archaeology:** Survey Complete – no resources found

**Noise Constraint:** No constraint

**Electric Power Lines:** One existing pole 25 feet north of the site

**Solar Access:** Available

**Solar Orientation:** Available

**Hazardous Materials:** None

### **SERVICES**

**Fire Protection:** Central Fire Protection

**School District:** Live Oak Elementary; Santa Cruz High School District

**Sewage Disposal:** Public

**Drainage District:** Zone 5

**Project Access:** 7<sup>th</sup> Avenue

**Water Supply:** Will-serve letter from Santa Cruz Water Department

### **PLANNING POLICIES**

**Zone District:** RM-4 (Multi-Family Residential – 4,000 square foot minimum lot size)

**General Plan:** R-UM (Urban Medium

**Special Designation:** None



Residential) and O-U (Urban Open Space)

Urban Services Line:   X   Inside        Outside

Coastal Zone:   X   Inside        Outside

#### **PROJECT SETTING AND BACKGROUND:**

The subject property is located on 7<sup>th</sup> Avenue, a county-maintained road. The parcel to be divided is currently developed with a 1,048 square foot single-family dwelling and attached garage. The parcel takes access from 7<sup>th</sup> Avenue.

The general area is developed to an urban medium density. The parcel is zoned RM-4, as are the majority of surrounding properties in the neighborhood. The General Plan designation for the subject and adjacent lots is Urban Residential – Medium Density (R-UM). The subject site is located within the Urban Services Line.

The majority of the site is relatively flat (less than 15%) to the east, sloping down to the west toward Arana Gulch. The majority of the parcel is vegetated with non-native grasses and herbs, with a 72-inch redwood located adjacent to 7<sup>th</sup> Avenue. At the western edge of the parcel a terrace grades down a moderate slope into Arana Gulch. The riparian corridor associated with Arana Gulch is characterized by a dense tree canopy of coast live oak, blue gum, and black walnut. The riparian understory contains blackberry and ivy.

#### **DETAILED PROJECT DESCRIPTION:**

The project description is based on a Tentative Map prepared by Whitson Engineers, dated 04/09, Landscape Plan prepared by Ellen Cooper, Landscape Architect, dated 9/30/09 and architectural plans prepared by Pool & DeGrange, Architect, dated 05/09.

The project consists of dividing a 65,360 square foot parcel into nine townhouse parcels ranging from 1,430 to 1,708 net developable square feet with access roads and parking as common area. The proposed townhouse development would be accessed via a single private driveway off of 7<sup>th</sup> Avenue. The interior road would be 22 feet wide and would be part of the area (Parcel A) designated as Public Utility Easement and Common Area. Parcel A also includes the riparian corridor associated with Arana Gulch.

The proposed project includes 733 cubic yards of grading.

The parcel is designated RM-4 (multi-Family Residential – 4,000 square feet minimum parcel size) and R-UM (Urban Medium Density Residential) in the Santa Cruz County General Plan. The project is in compliance with the density requirements in the General Plan as shown in the following table:

Gross Area	(E) Sidewalk Easement/ROW	Riparian Woodland	Net Developable Area	Units Proposed	R-UM Required Density	Proposed Project Density
1.50 ac.	.05 ac	.57 ac	.88 ac.	9	7.3 to 10.8 units per acre	10.23 units per acre

The project has been reviewed by the County Sanitation District and it was determined that sewer service is available for the proposed project. Additionally, the project has obtained a will serve letter for water service from the Santa Cruz City Water Department (Attachment 12).

The proposed stormwater management system includes the installation of a retention, infiltration and dispersion system at the rear (west) of the parcel. Site drainage would be routed to the retention system via hard piping along the southern property line.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

### III. ENVIRONMENTAL REVIEW CHECKLIST

#### A. Geology and Soils

Does the project have the potential to:

1. Expose people or structures to potential adverse effects, including the risk of material loss, injury, or death involving:

- A. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or as identified by other substantial evidence?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

- B. Seismic ground shaking?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

- C. Seismic-related ground failure, including liquefaction?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

- D. Landslides?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

All of Santa Cruz County is subject to some hazard from earthquakes. However, the project site is not located within or adjacent to a county or State mapped fault zone. A geotechnical investigation for the proposed project was performed by Rock Solid Engineering (Attachment 3). The report concluded that the potential for collateral seismic hazards, such as surface rupture, coseismic ground cracking, seismically induced liquefaction, and landsliding to affect the site is low. The near-surface soils were found to be highly expansive, therefore the report contains recommendations for overexcavation and recompaction to provide competent engineered fill below the proposed (conventional) foundation system. Project-specific geotechnical reports will be required prior to the issuance of building permits for the proposed dwellings as a condition of approval of the minor land division.

The report was reviewed and accepted by the Environmental Planning Department. Implementation of the additional recommendations included in the review letter prepared by Environmental Planning staff (Attachment 5) will serve to further reduce the potential risk of seismic shaking.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

2. Subject people or improvements to damage from soil instability as a result of on- or off-site landslide, lateral spreading, to subsidence, liquefaction, or structural collapse?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

The geotechnical report cited above did not identify a significant potential for damage caused by any of these hazards.

3. Develop land with a slope exceeding 30%?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

No development will occur on slopes exceeding 30%.

4. Result in soil erosion or the substantial loss of topsoil?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

Some potential for erosion exists during the construction phase of the project; however, this potential is minimal because standard erosion controls are a required condition of the project. Per Section 16.22.060, prior to approval of a grading or building permit, the project must have an approved Erosion Control Plan, which will specify detailed erosion and sedimentation control measures. The plan will include provisions for disturbed areas to be planted with ground cover and to be maintained to minimize surface erosion.

5. Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code, creating substantial risks to property?

_____	_____	<u>  X  </u>	_____
-------	-------	--------------	-------

The geotechnical report identified expansive soils near the surface and recommends overexcavation to remove the expansive soil and replacement with imported non-expansive soils. The project will be conditioned to require that the proposed construction adhere to all recommendations made in the geotechnical report prepared for the project.

6. Place sewage disposal systems in areas dependent upon soils incapable of adequately supporting the use of septic tanks, leach fields, or alternative waste water disposal systems?

_____	_____	_____	<u>  X  </u>
-------	-------	-------	--------------

No septic systems are proposed. The Sanitation Section of the Public Works Department has determined that sewer service is available for the subject development (Attachment 13), and the applicant will be required to pay standard sewer connection

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

and applicable service fees that fund sanitation improvements as a Condition of Approval for the project.

7. Result in coastal cliff erosion? \_\_\_\_\_ X \_\_\_\_\_

The project is not located on or in the vicinity of a coastal bluff.

### **B. Hydrology, Water Supply and Water Quality**

Does the project have the potential to:

1. Place development within a 100-year flood hazard area? \_\_\_\_\_ X \_\_\_\_\_

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, the western portion of the project site lies within a 100-year flood hazard area corresponding to the riparian corridor associated with Arana Gulch. No development is proposed within the flood hazard area.

2. Place development within the floodway resulting in impedance or redirection of flood flows? \_\_\_\_\_ X \_\_\_\_\_

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Rate Map, dated March 2, 2006, no portion of the project site lies within a floodway.

3. Be inundated by a seiche or tsunami? \_\_\_\_\_ X \_\_\_\_\_

The project site is located nearly one mile inland from the coast, and while the thalweg of Arana Gulch is just 6 feet above sea level at this location, the project development is at 60 feet above sea level and well above the level that a seiche or tsunami is projected to reach.

4. Deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit, or a significant contribution to an existing net deficit in available supply, or a significant lowering of the local groundwater table? \_\_\_\_\_ X \_\_\_\_\_

The project will obtain water from Santa Cruz City Water Department and will not rely on private well water. Although the project will incrementally increase water demand, The Santa Cruz City Water Department has indicated that adequate supplies are

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

available to serve the project (Attachment 12). The western portion of the subject site is located in a mapped groundwater recharge area, however this area lies within the riparian corridor and will not be developed. Stormwater runoff will be captured and hard piped to a retention trench adjacent to the groundwater recharge area.

On balance there will be no increase in the amount of stormwater runoff from the site and the project will not significantly impact groundwater supplies.

5. Degrade a public or private water supply? (Including the contribution of urban contaminants, nutrient enrichments, or other agricultural chemicals or seawater intrusion).

X

Runoff from this project may contain small amounts of chemicals and other household contaminants. No commercial or industrial activities are proposed that would contribute a significant amount of contaminants to a public or private water supply. Potential siltation from the proposed project will be mitigated through implementation of erosion control measures.

6. Degrade septic system functioning?

X

The site and surrounding properties are served by public sewer systems.

7. Alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which could result in flooding, erosion, or siltation on or off-site?

X

The existing drainage pattern would not be significantly altered by the addition of proposed improvements and construction of the new townhouses. The proposed drainage system will route surface runoff to a proposed retention and infiltration system adjacent to Arana Gulch. Erosion control will incorporate Best Management Practices to ensure that the installation of the drainage system does not create erosion or siltation into Arana Gulch. No development is proposed within the 30-foot riparian buffer and no removal of existing vegetation within the corridor will be permitted. Therefore the proposed construction will not alter the course of the stream or contribute to flooding, erosion, or siltation off-site. The Department of Public Works Stormwater Management Staff and County Environmental Planning Staff have reviewed and approved preliminary drainage plans and a condition of approval of the project would require the applicant to obtain Environmental Planning and Public Works approval of final drainage and erosion control plans prior to parcel map recordation, which would reduce the possible impacts of flooding, erosion, or siltation to off-site to

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

less than significant.

8. Create or contribute runoff which would exceed the capacity of existing or planned storm water drainage systems, or create additional source(s) of polluted runoff?

\_\_\_\_\_ X \_\_\_\_\_

Drainage Calculations prepared by Whitson Engineers (Attachment 6), have been reviewed for potential drainage impacts and accepted by the Department of Public Works (DPW) Drainage Section staff. Proposed new drainage facilities include capturing stormwater runoff in hard pipes along the southern edge of the property and directing the runoff to the retention system proposed at the western edge of the site. Per County Code Section 16.22.060, prior to parcel map recordation, the applicant would be required to submit final drainage and erosion control plans for review and approval by Department of Public Works Stormwater Management and Environmental Planning Staff to ensure that runoff would be held on site and would not exceed the capacity of existing offsite facilities. Refer to response B-5 for discussion of urban contaminants and/or other polluting runoff.

9. Contribute to flood levels or erosion in natural water courses by discharges of newly collected runoff?

\_\_\_\_\_ X \_\_\_\_\_

Although there will be an increase in net impervious surfaces resulting from this project, the proposed retention and infiltration system adjacent to the riparian corridor will ensure that the newly collected runoff will be regulated in such a way as to prevent any contribution to flood levels or erosion affecting Arana Gulch. Additionally, prior to parcel map recordation, the applicant would be required to submit final drainage and erosion control plans for review and approval by Department of Public Works Stormwater Management and Environmental Planning Staff to ensure that runoff would be held on site and would not exceed the capacity of proposed onsite facilities. Therefore, the creek would not be impacted by discharges of newly collected runoff as a result of the project.

10. Otherwise substantially degrade water supply or quality?

\_\_\_\_\_ X \_\_\_\_\_

Few pollutants would be added to the existing water supply as a result of this project. Department of Public Works Stormwater Management Staff have reviewed and approved preliminary drainage plans and would review and approve final drainage plans prior to parcel map recordation to ensure that appropriate treatment methods are proposed to treat runoff prior to discharge off site and also to ensure the appropriate placement and design of treatment facilities, such as vegetated swales. This condition would ensure that the impacts of runoff on water quality are less than significant. See

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

responses B-4 regarding impacts to water supply.

### **C. Biological Resources**

Does the project have the potential to:

1. Have an adverse effect on any species identified as a candidate, sensitive, or special status species, in local or regional plans, policies, or regulations, or by the California Department of Fish and Game, or U.S. Fish and Wildlife Service?

\_\_\_\_\_ X \_\_\_\_\_

The site is mapped as containing habitat for the Zayante band-winged grasshopper, white-rayed pantachaeta, Santa Cruz tarplant and two animal species associated with the nearby Arana Gulch. A Biotic Assessment performed for the 2007 high-density housing proposal included the subject site (Attachment 8) and concluded that based on the extent of historical disturbance and lack of identified occurrences, the development of the parcel would not result in any direct or indirect impacts to special-status species or their habitats.

A condition of project approval will require the construction of a split-rail fence to mark the location of the riparian corridor. The fence will restrict human access to the corridor and will therefore provide protection against riparian habitat degradation associated with the unrestricted access that has historically existed on the site.

2. Have an adverse effect on a sensitive biotic community (riparian corridor), wetland, native grassland, special forests, intertidal zone, etc.)?

\_\_\_\_\_ X \_\_\_\_\_

See response C-1 above.

3. Interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native or migratory wildlife nursery sites?

\_\_\_\_\_ X \_\_\_\_\_

The proposed project does not involve any activities that would interfere with the movements or migrations of fish or wildlife, or impede use of a known wildlife nursery site in that no development is proposed or permitted within the riparian corridor. Additionally the fencing that will be required to mark the riparian corridor will be of split rail construction allowing the unrestricted movement of wildlife into and out of the riparian habitat.



Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

4. Produce nighttime lighting that will illuminate animal habitats?

X

The subject property is located in an urbanized area and is surrounded by existing residential development that currently generates nighttime lighting.

The development area is adjacent to the Arana Gulch riparian corridor, which could be adversely affected by a new or additional source of light that is not adequately deflected or minimized. The following mitigation will be added to the project, such that any potential impact will be reduced to a less than significant level: Permanent outdoor lighting at the west end of the development shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).

5. Make a significant contribution to the reduction of the number of species of plants or animals?

X

Refer to C-1 and C-2 above.

6. Conflict with any local policies or ordinances protecting biological resources (such as the Significant Tree Protection Ordinance, Sensitive Habitat Ordinance, provisions of the Design Review ordinance protecting trees with trunk sizes of 6 inch diameters or greater)?

X

The project will not conflict with any local policies or ordinances. The required project conditions will serve to minimize the disturbance of sensitive riparian corridor to an acceptable level by prohibiting any development activities and by restricting access to the corridor by means of a split rail fence.

General Plan Policy 5.1.12 requires, as a condition of development approval, restoration of any area of the subject property that has been identified as degraded habitat, with the degree of restoration to be commensurate with the scope of the project. The policy further states that such conditions may include the removal of non-native or invasive species. The riparian corridor associated with Arana Gulch contains a large amount of invasive ivy that has the potential to negatively impact the native riparian vegetation. A condition of project approval will require the removal of the ivy from trees located within the riparian corridor of the subject parcel. The ivy removal shall occur within a 3-foot radius around the base of the riparian trees. While it is not feasible to permanently eradicate the ivy due to the infestation of surrounding parcels

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

along the Arana Gulch corridor, the imposition of the 3-foot radius will help to extend the viability of the affected riparian woodland to a greater degree than would otherwise be the case and will help to improve the quality of the riparian habitat.

No Significant Trees are to be removed as a part of this project and the proposed construction will be required to adhere to the recommendations for tree protection made by the project arborist.

7. Conflict with the provisions of an adopted Habitat Conservation Plan, Biotic Conservation Easement, or other approved local, regional, or state habitat conservation plan?

X

An adopted Habitat Conservation Plan has not been prepared for this project.

#### **D. Energy and Natural Resources**

Does the project have the potential to:

1. Affect or be affected by land designated as "Timber Resources" by the General Plan?

X

The parcel is not a designated Timber Resource in the General Plan, nor are the adjacent or surrounding parcels.

2. Affect or be affected by lands currently utilized for agriculture, or designated in the General Plan for agricultural use?

X

The project site is not currently being used for agriculture and no agricultural uses are proposed for the site or surrounding vicinity.

3. Encourage activities that result in the use of large amounts of fuel, water, or energy, or use of these in a wasteful manner?

X

No proposed activities would result in the use of large amounts of fuel, water, or energy because the amount of water and energy required to construct and service the proposed 9-unit townhouse development would be consistent with other developments of similar size and design. While the existing dwelling is proposed for demolition, the house will be advertised for potential relocation prior to demolition. As a condition of obtaining water service from the City of Santa Cruz Water Department (Attachment 12) the development will be subject to the City's Landscape Water Conservation

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

requirements. Therefore consumption of large amounts of fuel, water and energy would be less than significant.

4. Have a substantial effect on the potential use, extraction, or depletion of a natural resource (i.e., minerals or energy resources)?

X

The subject parcel is not mapped for mineral resources and no natural resources will be used, extracted, or depleted as a result of this project.

### **E. Visual Resources and Aesthetics**

Does the project have the potential to:

1. Have an adverse effect on a scenic resource, including visual obstruction of that resource?

X

The proposed project is not visible from a County designated scenic resource.

2. Substantially damage scenic resources, within a designated scenic corridor or public view shed area including, but not limited to, trees, rock outcroppings, and historic buildings?

X

The project site is not located along a County designated scenic road or within a designated scenic resource area.

3. Degrade the existing visual character or quality of the site and its surroundings, including substantial change in topography or ground surface relief features, and/or development on a ridge line?

X

The existing visual setting is characterized as urban with the surrounding parcels developed with condos, townhouses, mobile homes, and single family dwellings. The portion of the subject parcel proposed for development is primarily flat and the proposed development requires about 733 cubic yards of earth to be moved in order to balance the site. The applicant will be required to obtain approval of final grading plans by Environmental Planning Staff prior to building permit issuance, to ensure that site grading is minimized and does not substantially impact the existing character of the site.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

4. Create a new source of light or glare which would adversely affect day or nighttime views in the area?

X

The project will contribute an incremental amount of night lighting to the visual environment. However, the following project conditions will reduce this potential impact to a less than significant level: Permanent outdoor lighting shall be minimized and shall be shielded by fixture design or other means to minimize illumination of surrounding areas. Light sources that do not attract insects (e.g. yellow or sodium vapor bulbs) shall be used if outdoor lighting is necessary (e.g. security or handicap access structures).

5. Destroy, cover, or modify any unique geologic or physical feature?

X

The subject parcel is adjacent to Arana Gulch, an urban arroyo. No development is proposed or permitted within the 30-foot buffer from Arana Gulch; therefore no significant impact to this physical feature is anticipated.

#### **F. Cultural Resources**

Does the project have the potential to:

1. Cause an adverse change in the significance of a historical resource as defined in CEQA Guidelines 15064.5?

X

The existing structures on the property are not designated as a historic resources on any federal, State or local inventory.

2. Cause an adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines 15064.5?

X

According to the Archaeological Site Assessment performed by the Santa Cruz Archaeological Society, dated February 13, 2007 (Attachment 7), there is no evidence of pre-historic cultural resources. However, pursuant to Section 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction, the responsible persons shall immediately cease and desist from all further site excavation and comply with the notification procedures given in County Code Chapter 16.40.040.

3. Disturb any human remains, including those interred outside of formal cemeteries?

X

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

Pursuant to Section 16.40.040 of the Santa Cruz County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this project, human remains are discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the sheriff-coroner and the Planning Director. If the coroner determines that the remains are not of recent origin, a full archeological report shall be prepared and representatives of the local Native California Indian group shall be contacted. Disturbance shall not resume until the significance of the archeological resource is determined and appropriate mitigations to preserve the resource on the site are established.

4. Directly or indirectly destroy a unique paleontological resource or site? \_\_\_\_\_

X

The subject parcel is not within or in the vicinity of a mapped paleontological resource area; therefore, no further studies were required as part of the application for development.

#### **G. Hazards and Hazardous Materials**

Does the project have the potential to:

1. Create a significant hazard to the public or the environment as a result of the routine transport, storage, use, or disposal of hazardous materials, not including gasoline or other motor fuels? \_\_\_\_\_

X

No hazardous materials will be stored, used disposed of, or transported to and from the site.

2. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? \_\_\_\_\_

X

The project site is not included on the 9/17/09 list of hazardous sites in Santa Cruz County compiled pursuant to the specified code.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

3. Create a safety hazard for people residing or working in the project area as a result of dangers from aircraft using a public or private airport located within two miles of the project site? \_\_\_\_\_ X \_\_\_\_\_

There are no public or private airports located within 2 miles of the project site.

4. Expose people to electro-magnetic fields associated with electrical transmission lines? \_\_\_\_\_ X \_\_\_\_\_

No high voltage transmission lines exist on the subject parcel; therefore, exposure to electromagnetic fields would be less than significant.

5. Create a potential fire hazard? \_\_\_\_\_ X \_\_\_\_\_

The project design incorporates all applicable fire safety code requirements and will include fire protection devices as required by the local fire agency.

6. Release bio-engineered organisms or chemicals into the air outside of project buildings? \_\_\_\_\_ X \_\_\_\_\_

There will be no bio-engineered organisms or chemicals created or used at the proposed site.

#### H. Transportation/Traffic

Does the project have the potential to:

1. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? \_\_\_\_\_ X \_\_\_\_\_

The project will create a small incremental increase in traffic on nearby roads and intersections. However, given the small number of new trips created by the development of nine new townhomes, the increase is less than significant. Further, the increase will not cause the Level of Service at any nearby intersection to drop below Level of Service D.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

2. Cause an increase in parking demand which cannot be accommodated by existing parking facilities?

_____	_____	X	_____
-------	-------	---	-------

The project meets the code requirements for the required number of parking spaces and therefore new parking demand will be accommodated on site.

3. Increase hazards to motorists, bicyclists, or pedestrians?

_____	_____	X	_____
-------	-------	---	-------

The proposed project will comply with current road requirements to prevent potential hazards to motorists, bicyclists, and/or pedestrians.

4. Exceed, either individually (the project alone) or cumulatively (the project combined with other development), a level of service standard established by the county congestion management agency for designated intersections, roads or highways?

_____	_____	X	_____
-------	-------	---	-------

See response H-1 above.

#### I. Noise

Does the project have the potential to:

1. Generate a permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

_____	_____	X	_____
-------	-------	---	-------

The project will create an incremental increase in the existing noise environment. However, this increase will be small, and will be similar in character to noise generated by the surrounding existing uses.

2. Expose people to noise levels in excess of standards established in the General Plan, or applicable standards of other agencies?

_____	_____	X	_____
-------	-------	---	-------

Per County policy, average hourly noise levels shall not exceed the General Plan threshold of 50 Leq during the day and 45 Leq during the nighttime. The subject parcel is surrounded by parcels developed with single-family dwellings and is not located adjacent to a heavily traveled roadway or stationary noise source; therefore, the proposed creation of three parcels does not have the potential to expose people to

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

noise levels in excess of General Plan standards.

3. Generate a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? \_\_\_\_\_ X \_\_\_\_\_

Noise generated during construction will increase the ambient noise levels for adjoining areas. Construction will be temporary, however, and given the limited duration of this impact it is considered to be less than significant.

### J. Air Quality

Does the project have the potential to:  
(Where available, the significance criteria established by the MBUAPCD may be relied upon to make the following determinations).

1. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? \_\_\_\_\_ X \_\_\_\_\_

The North Central Coast Air Basin does not meet State standards for ozone and particulate matter (PM10). Therefore, the regional pollutants of concern that would be emitted by the project are ozone precursors (Volatile Organic Compounds [VOCs] and nitrogen oxides [NOx]), and dust.

Given the modest amount of new traffic that will be generated by the project there is no indication that new emissions of VOCs or NOx will exceed Monterey Bay Unified Air Pollution Control District (MBUAPCD) thresholds for these pollutants and therefore there will not be a significant contribution to an existing air quality violation.

Project construction may result in a short-term, localized decrease in air quality due to generation of dust. However, standard dust control best management practices, such as periodic watering, will be implemented during construction to reduce impacts to a less than significant level.

2. Conflict with or obstruct implementation of an adopted air quality plan? \_\_\_\_\_ X \_\_\_\_\_

The project will not conflict with or obstruct implementation of the regional air quality plan. See J-1 above.

3. Expose sensitive receptors to substantial pollutant concentrations? \_\_\_\_\_ X \_\_\_\_\_



Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

See response J-1 regarding the impacts of temporary construction dust. The project has the potential to expose sensitive receptors in the surrounding residential neighborhood to pollutant concentrations during construction; however, dust is the only potential pollutant that would result from the project and the applicant shall be required to implement standard dust control best management practices (BMPs) during construction which will reduce the impacts of pollutants on surrounding sensitive receptors to a level that is less than significant. Required BMPs include watering during and after earthmoving operations, covering all spoils piles and the application of drain rock at the construction entrance.

- |   |       |       |             |       |
|---|-------|-------|-------------|-------|
| 4. Create objectionable odors affecting a substantial number of people? | _____ | _____ | _____X_____ | _____ |
|---|-------|-------|-------------|-------|

No objectionable odors will be created by the proposed use.

**K. Public Services and Utilities**

Does the project have the potential to:

- |   |       |       |             |       |
|---|-------|-------|-------------|-------|
| 1. Result in the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: |       |       |             |       |
| a. Fire protection?   | _____ | _____ | _____X_____ | _____ |
| b. Police protection?   | _____ | _____ | _____X_____ | _____ |
| c. Schools?   | _____ | _____ | _____X_____ | _____ |
| d. Parks or other recreational activities?  | _____ | _____ | _____X_____ | _____ |
| e. Other public facilities; including the maintenance of roads?   | _____ | _____ | _____X_____ | _____ |

While the project represents an incremental contribution to the need for services, the increase will be minimal. Moreover, the project meets all of the standards and requirements identified by the local fire agency or California Department of Forestry, as

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

applicable, and school, park, and transportation fees to be paid by the applicant will be used to offset the incremental increase in demand for school and recreational facilities and public roads.

2. Result in the need for construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

X

Drainage analysis of the project by Whitson Engineers and reviewed and approved by Drainage Section of the Public Works Department concluded that all stormwater drainage can be adequately accommodated on-site and will not impact existing facilities.

3. Result in the need for construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

X

The project will connect to an existing municipal water supply. Santa Cruz City Department has determined that adequate supplies are available to serve the project (Attachment 12).

Municipal sewer service is available to serve the project, as reflected in the attached letter from the Sanitation Section of the Public Works Department (Attachment 13).

4. Cause a violation of wastewater treatment standards of the Regional Water Quality Control Board?

X

The project's wastewater flows will not violate any wastewater treatment standards.

5. Create a situation in which water supplies are inadequate to serve the project or provide fire protection?

X

The water mains serving the project site provide adequate flows and pressure for fire suppression. Additionally, the Central Fire Protection District has reviewed and approved the conceptual improvement plans and shall review and approve final improvement plans prior to parcel map recordation to assure conformity with fire protection standards that include minimum requirements for water supply for fire protection. In addition, the Santa Cruz City Water Department has determined that

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

there is adequate water available to serve the proposed development (Attachment 12) and provide fire protection.

6. Result in inadequate access for fire protection?

X

The project's road access meets County standards and has been approved by the Central Fire Protection District as appropriate. The final improvement plans shall be reviewed and approved by the Fire Protection District prior to parcel map recordation to ensure that adequate access is provided for emergency vehicles during and after construction.

7. Make a significant contribution to a cumulative reduction of landfill capacity or ability to properly dispose of refuse?

X

The project would make an incremental contribution to the reduced capacity of regional landfills as the proposed townhouse units become occupied. In addition, the project would make a one-time construction to the landfill as a result of construction and the potential demolition of the existing dwelling. However, the overall contribution to the landfill capacity will be less than significant.

8. Result in a breach of federal, state, and local statutes and regulations related to solid waste management?

X

Solid waste accumulation is anticipated to increase slightly as a result of creating nine town homes; however residential daily trash accumulation is minimal and is not expected to result in a breach of federal, state or local statutes and regulations.

#### **L. Land Use, Population, and Housing**

Does the project have the potential to:

1. Conflict with any policy of the County adopted for the purpose of avoiding or mitigating an environmental effect?

X

The proposed project would not conflict with any policies adopted for the purpose of avoiding or mitigating an environmental effect in that mitigations would be required as stated throughout the above document to ensure: public health and safety regarding potential geologic hazards and geotechnical site conditions, structural safety, effective storm water management and minimization of nighttime lighting.

Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
---	---	---	-------------------

2. Conflict with any County Code regulation adopted for the purpose of avoiding or mitigating an environmental effect?

\_\_\_\_\_ X \_\_\_\_\_

The proposed project would require minimal grading to mitigate the presence of expansive soils and engineered grading plans will be required for review and approval by County Environmentally Planning Staff prior to building permit issuance to ensure consistency with Chapter 16.20 (Grading Regulations) of the County Code.

3. Physically divide an established community?

\_\_\_\_\_ X \_\_\_\_\_

The project will not include any element that will physically divide an established community.

4. Have a potentially significant growth inducing effect, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

\_\_\_\_\_ X \_\_\_\_\_

The proposed project has been designed to meet the density and intensity of development allowed by the General Plan and zoning designations for the parcel. In addition, surrounding parcels in the vicinity of the parcel are already currently developed with single family homes, townhouses, condos, and a mobile home park. Consequently, the proposed project is not expected to have a significant growth inducing effect.

5. Displace substantial numbers of people, or amount of existing housing, necessitating the construction of replacement housing elsewhere?

\_\_\_\_\_ X \_\_\_\_\_

The proposed project will entail a net gain in housing units.

**M. Non-Local Approvals**

Does the project require approval of federal, state, or regional agencies?

Yes \_\_\_\_\_ No   X  

**N. Mandatory Findings of Significance**

1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, animal, or natural community, or eliminate important examples of the major periods of California history or prehistory?

Yes \_\_\_\_\_ No   X  

2. Does the project have the potential to achieve short term, to the disadvantage of long term environmental goals? (A short term impact on the environment is one which occurs in a relatively brief, definitive period of time while long term impacts endure well into the future)

Yes \_\_\_\_\_ No   X  

3. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects which have entered the Environmental Review stage)?

Yes \_\_\_\_\_ No   X  

4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Yes \_\_\_\_\_ No   X

# TECHNICAL REVIEW CHECKLIST

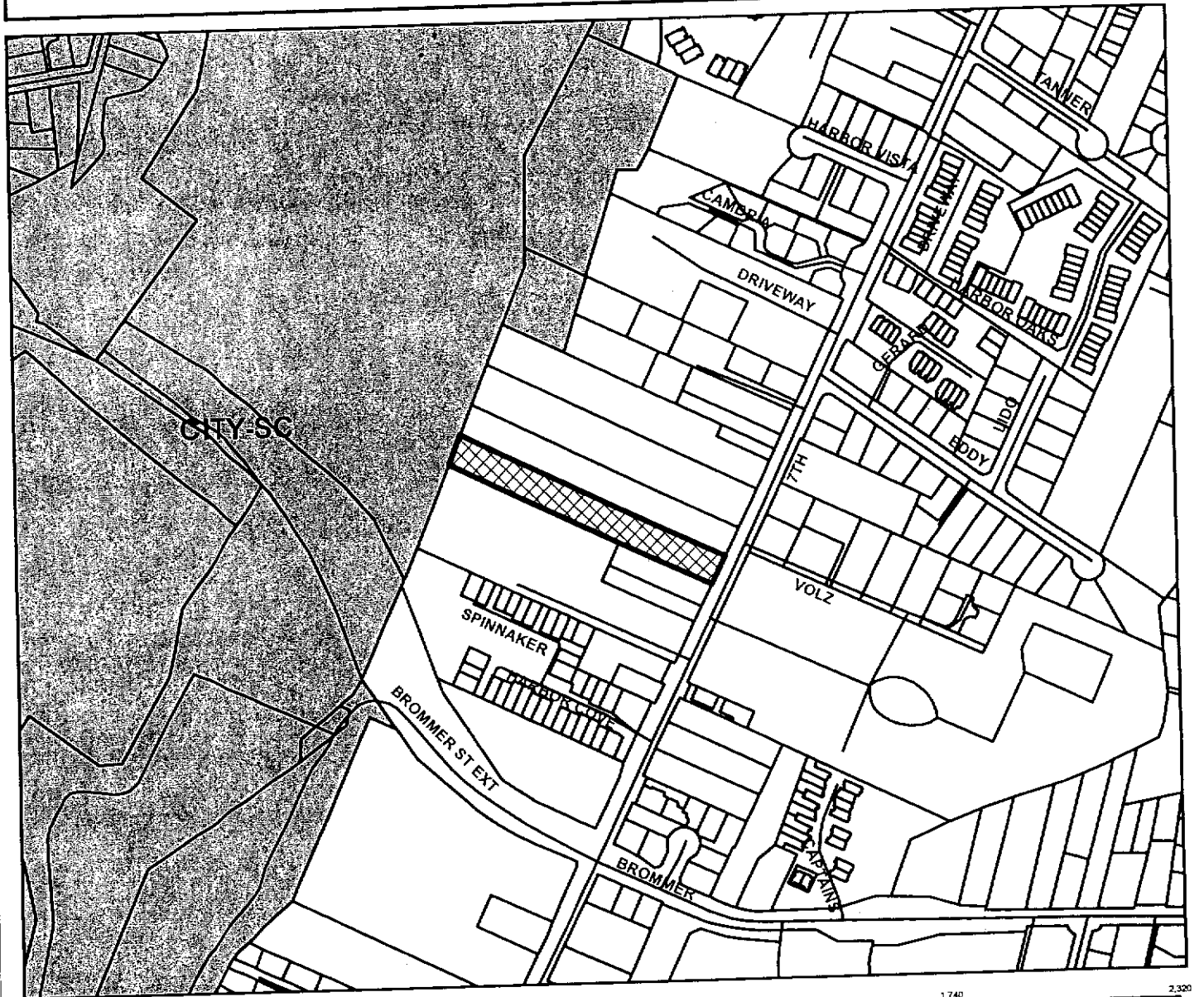
	<u>REQUIRED</u>	<u>COMPLETED*</u>	<u>N/A</u>
Agricultural Policy Advisory Commission (APAC) Review	_____	_____	X
Archaeological Review	XXXX	February 2007	_____
Biotic Report/Assessment	XXXX	August 2007	_____
Geologic Hazards Assessment (GHA)	_____	_____	X
Geologic Report	_____	_____	X
Geotechnical (Soils) Report	XXXX	Nov 2005; Dec 2008	_____
Riparian Pre-Site	XXXX	January 2007	X
Septic Lot Check	_____	_____	X
Other:	_____	_____	X
	_____	_____	_____

## Attachments:

1. Location Map, Map of Zoning Districts, Map of General Plan Designations, Assessors Parcel Map
2. Project Plans
3. Geotechnical Investigation prepared by Rock Solid Engineering, dated November 14, 2005, updated December 16, 2008.
4. Geotechnical Plan Review Letter prepared by Rock Solid Engineering, dated May 27, 2009
5. Geotechnical Review Letter prepared by Carolyn Banti, Associate Civil Engineer, dated April 3, 2009.
6. Drainage calculations prepared by Whitson Engineers, dated May, 2009
7. Archeological Reconnaissance Survey Letter prepared by Santa Cruz Archaeological Society, dated February 13, 2007
8. Biotic Site Assessment prepared by Bill Davilla, (EcoSystems West), dated August 13, 2007
9. Arborist Report prepared by Ellen Cooper & Associates, dated May 18, 2009
10. Riparian Map prepared by County Planning Department, dated January 2007
11. Discretionary Application Comments, dated December 18, 2009
12. Letter from Santa Cruz City Water Department dated December 9, 2008
13. Letter from the Sanitation Section of the County Public Works Department, dated January 6, 2008



# Location Map



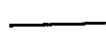
## LEGEND



APN: 026-211-19



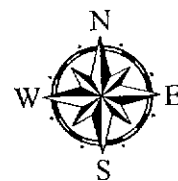
Assessors Parcels



Streets



SANTA CRUZ

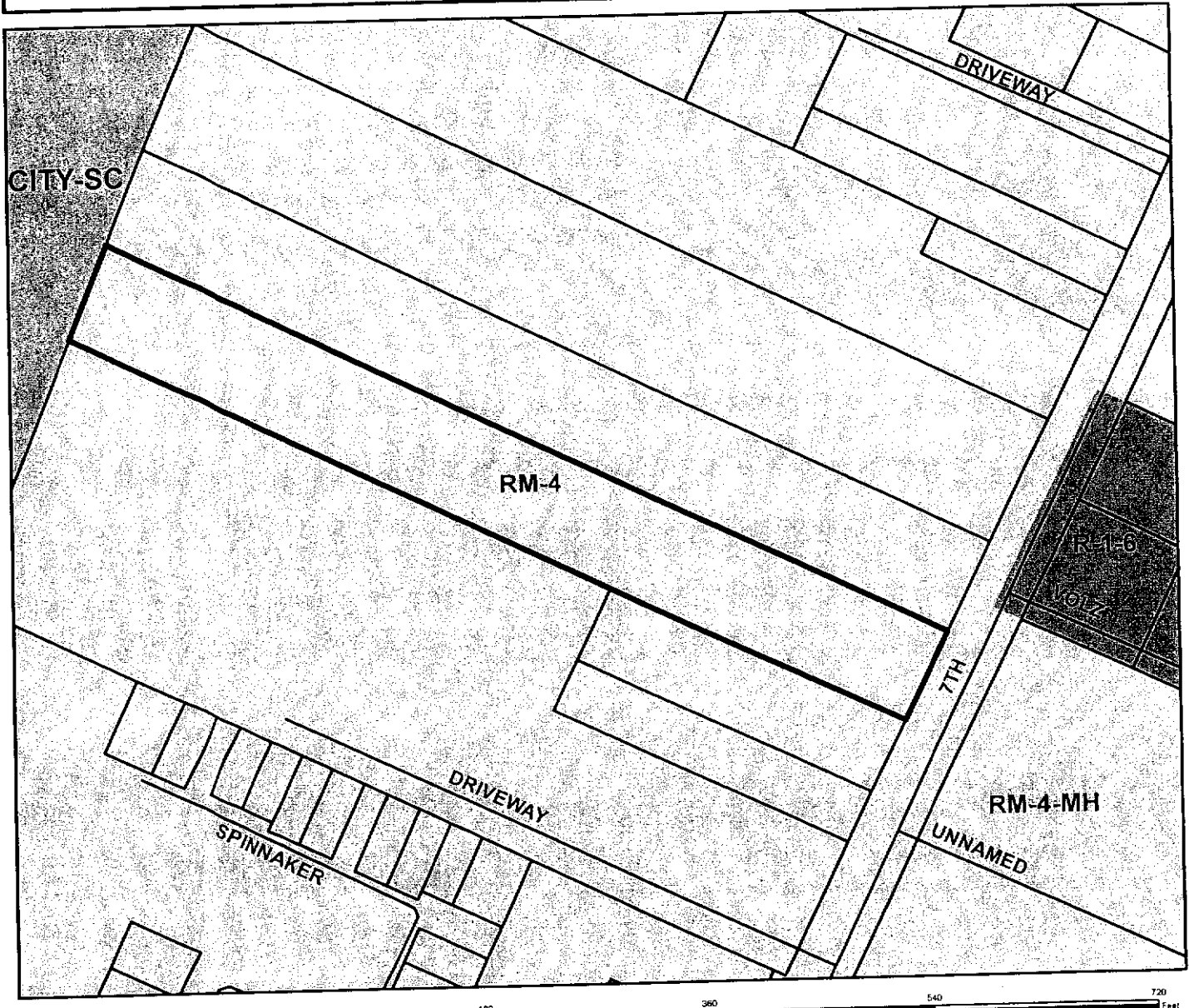


Map Created by  
County of Santa Cruz  
Planning Department  
April 2009

**EXHIBIT B**

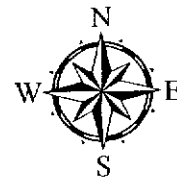


# Zoning Map



## LEGEND

- APN: 026-211-19
- Assessors Parcels
- Streets
- SANTA CRUZ
- RESIDENTIAL-MULTI FAMILY
- RESIDENTIAL-SINGLE FAMILY

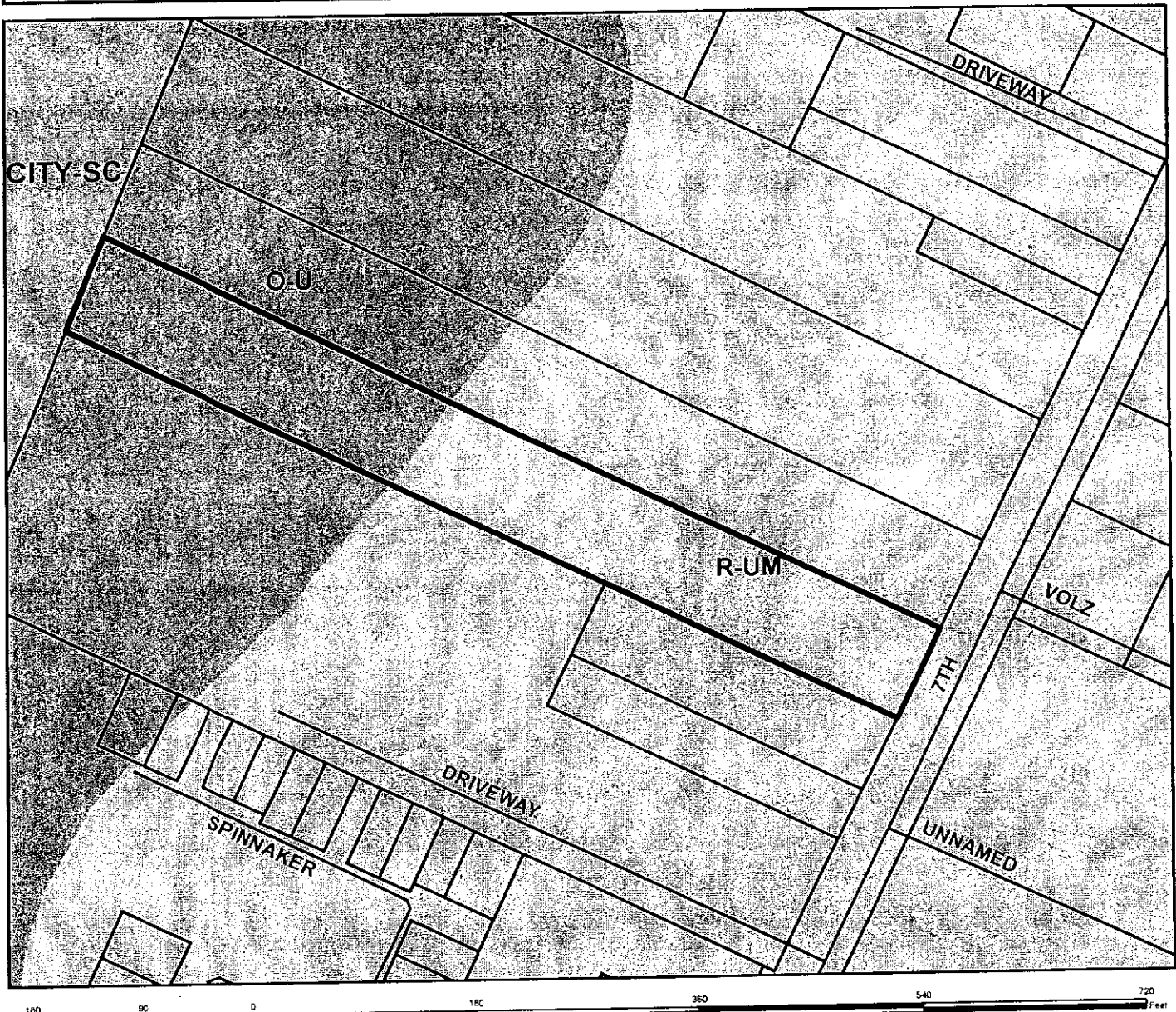


Map Created by  
County of Santa Cruz  
Planning Department  
April 2009





# General Plan Designation Map



## LEGEND



APN: 026-211-19



Assessors Parcels



Streets

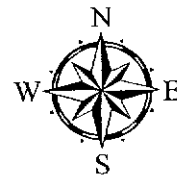


SANTA CRUZ

Residential - Urban Medium Density



Urban Open Space



Map Created by  
County of Santa Cruz  
Planning Department  
April 2009

**EXHIBIT E**



2733.0  
10.21.07

PL AFTER-  
PARCEL BY  
DEDICATION  
(E) FACE  
OF CURVE, (F.O.C.)

NEW PL-5

FD. 1/2" IP, ILLEGIBLE AND A FD. 1/2" IP,  
NO TAG THAT BEARS N65°10'00"E  
5.33', THEN S24°50'W 0.19'

USABLE OPEN SPACE  
WITHIN EACH LOT, TYP.  
SEE LANDSCAPE PLANS  
FOR SCREENING

194.81'

(E) ACCESS AND UTILITY EASEMENT WITHIN PARCEL A

PARCEL A

LOT

2004

LOT 2

2009F-  
OPENCASE

LOT 3

LOT 4

5  
LOT

**LOT 6**

PARCEL B1

2,037 SF  
DEDICATION

PARCEL  
25 x 01.5

CARLE & CARLE  
2127-OR-343 A.P.N.  
026-211-28

SEVENTH AVENUE

25.

25

1

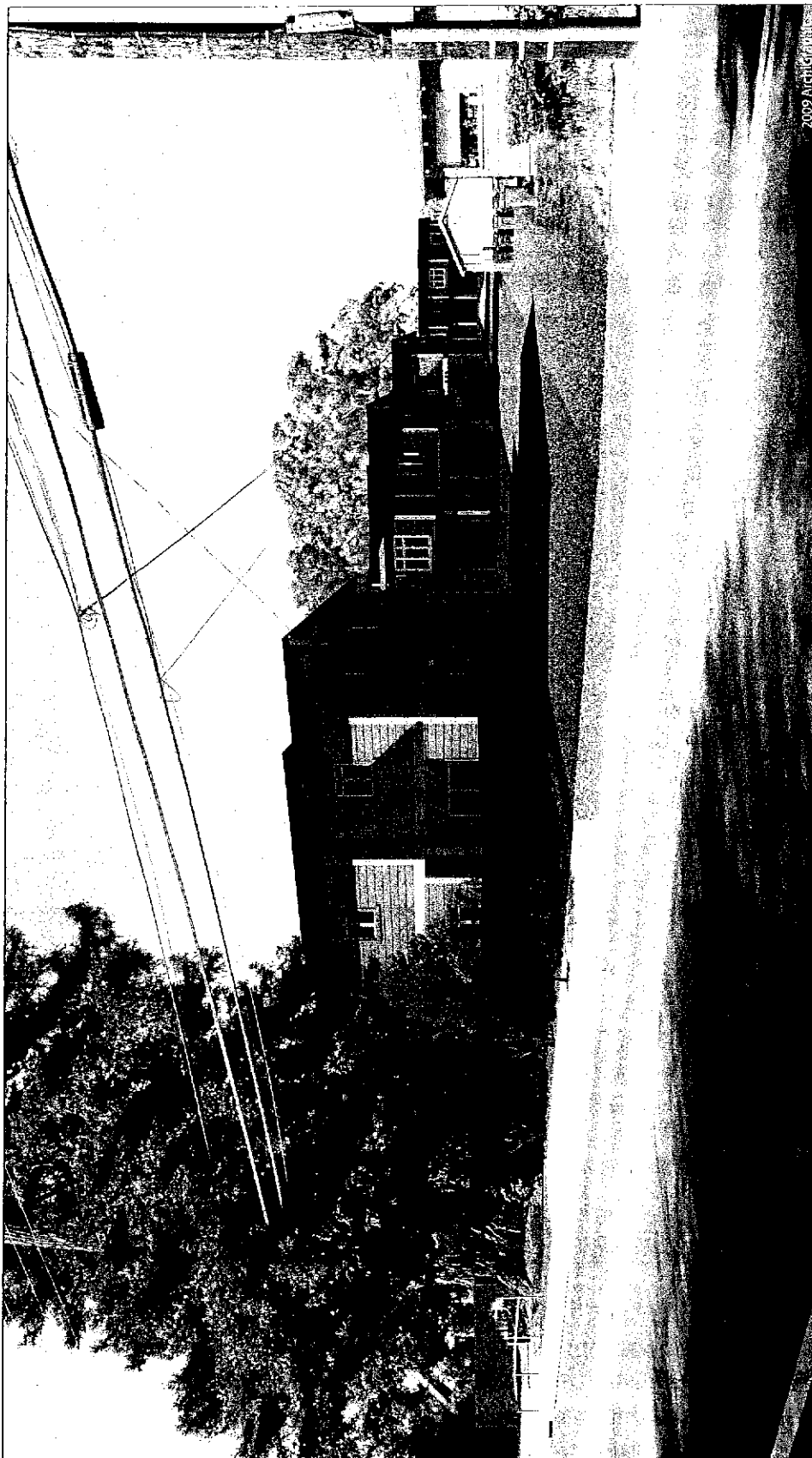
(E) ACCESS AND UTILITY EASEMENT WITHIN PARCEL A

258.13'

- 59 -

EXHIBIT E

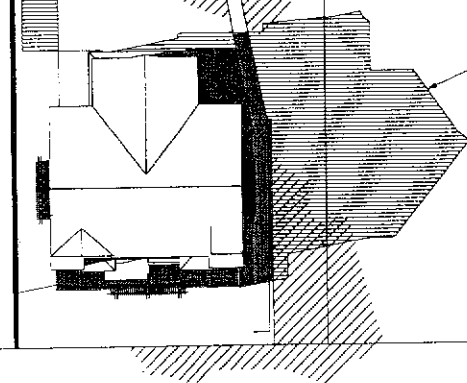
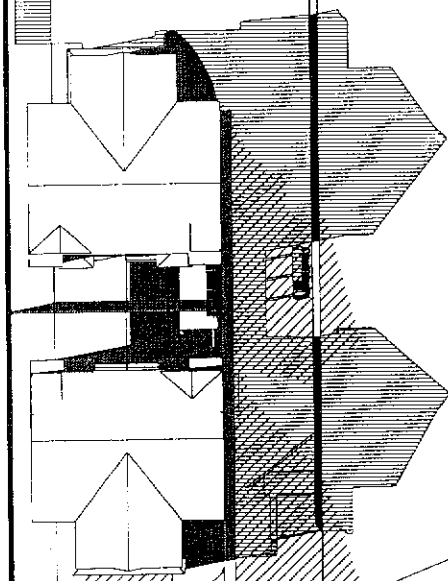
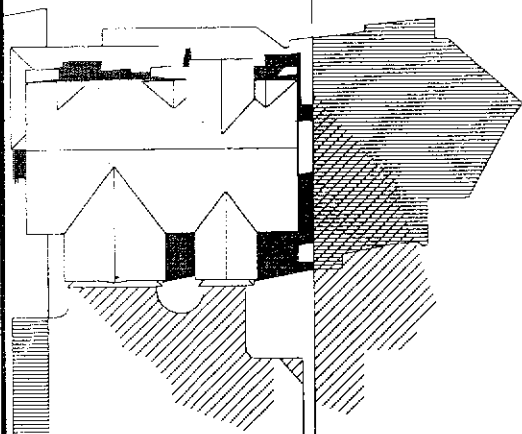
ATTACHMENT 2



1175 Seventh Avenue LLC

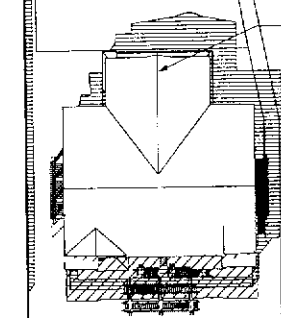
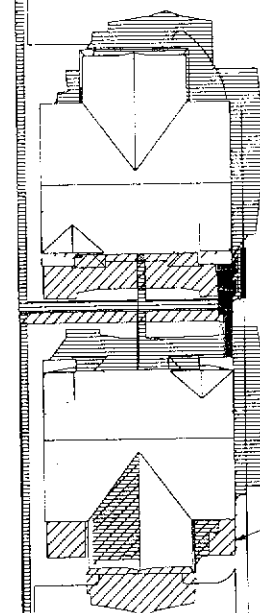
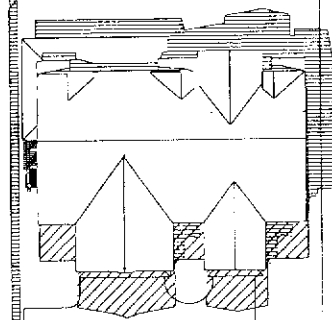
Santa Cruz

Rendering: ArchiGraphics  
October 19, 2009



Dec. 21, 2 PM

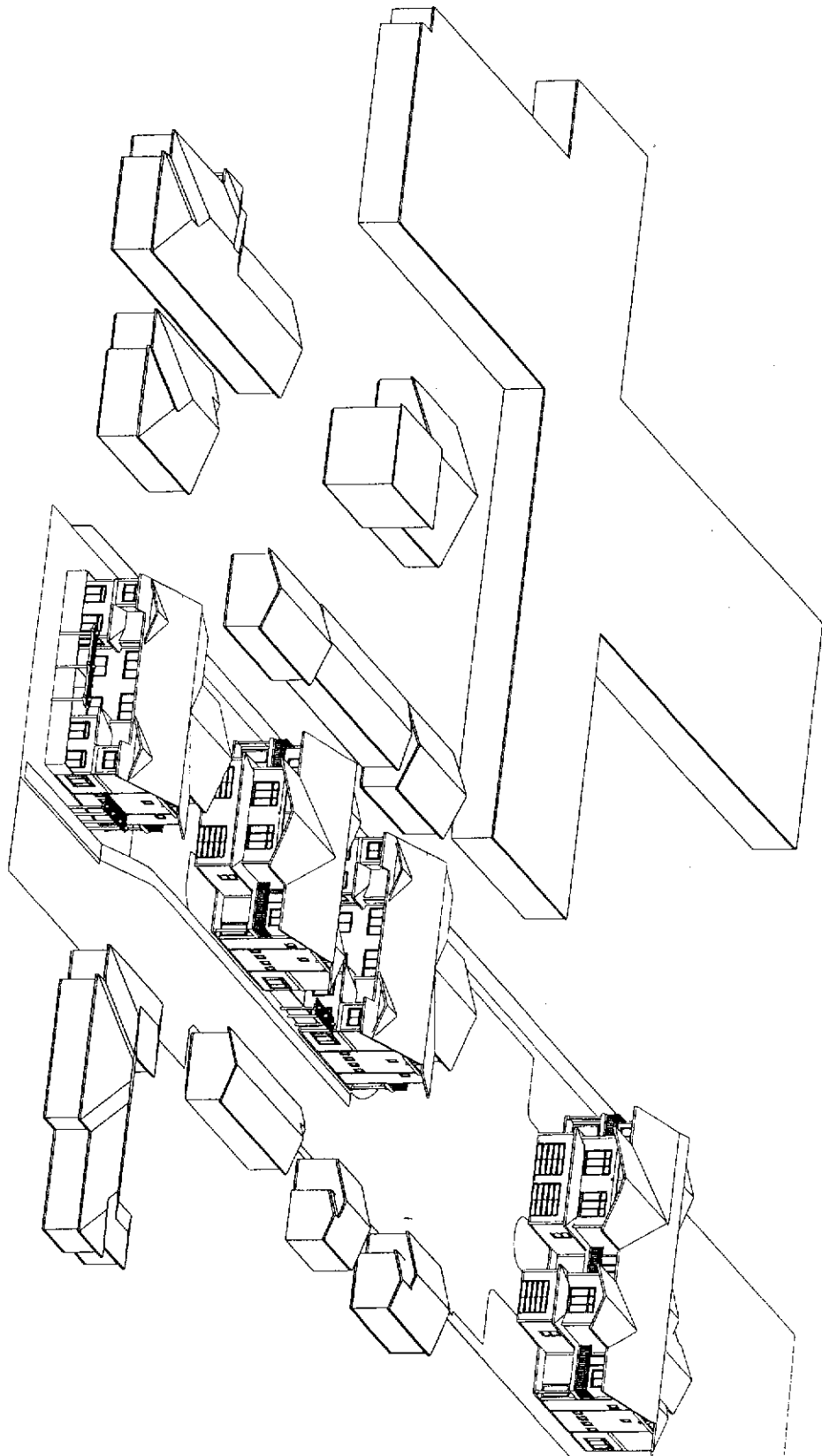
Dec. 21, 10 AM



June 21, 2 PM

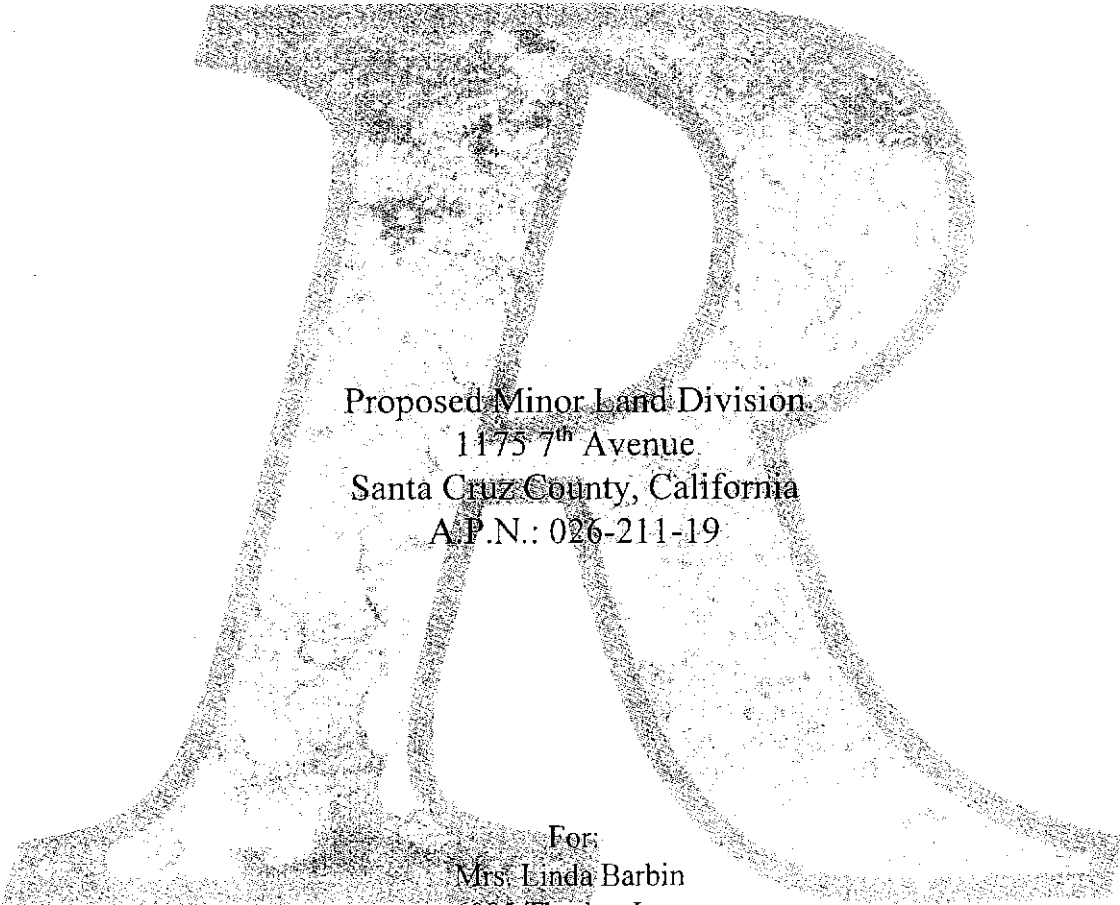
June 21, 10 AM

1175 Seventh Avenue LLC  
Santa Cruz  
Sun study: ArchiGraphics  
January 19, 2009



1175 Seventh Avenue LLC  
Santa Cruz  
Axonometric: ArchiGraphics  
January 19, 2009

## GEOTECHNICAL INVESTIGATION-DESIGN PHASE



Proposed Minor Land Division  
1175 7<sup>th</sup> Avenue  
Santa Cruz County, California  
A.P.N.: 026-211-19

For:  
Mrs. Linda Barbin  
6005 Thurber Lane  
Santa Cruz, California 95065

Project No. 05044  
November 14, 2005

EXHIBIT E

Project No. 05044  
November 14, 2005

Mrs Linda Barbin  
6005 Thurber Lane  
Santa Cruz, California 95065

SUBJECT: **GEOTECHNICAL INVESTIGATION - DESIGN PHASE**  
Geotechnical Investigation - Design Phase  
Proposed Minor Land Division  
1175 7<sup>th</sup> Avenue, Santa Cruz County, California  
A.P.N. 026-211-19

Dear Mrs. Barbin:

In accordance with your authorization, we have completed a geotechnical investigation for the proposed minor land division on 7<sup>th</sup> Avenue, in Santa Cruz, California. This report summarizes the findings, conclusions, and recommendations from our field exploration, laboratory testing, and engineering analysis. The conclusions and recommendations included herein are based upon applicable standards at the time this report was prepared.

It is a pleasure being associated with you on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

**ROCK SOLID ENGINEERING, INC.**



Shannon Chomé  
Senior Engineer  
R.C.E. 68398  
Expires 9/30/07

Distribution: (6) Addressee



- c. Underlying the sandy clay stratum, light brown silty sand is present. The silty sand was observed to approximately 14.5 feet below existing grade. This material is generally moist to wet, dense to very dense, and non-plastic. Some gravel was also observed in portions of this stratum.
- d. Beneath the silty sand stratum, orange brown to gray sandy siltstone was observed. The sandy siltstone observed to the extent of our borings at approximately 29.5 feet below existing grade. This material is generally moist to wet, and moderately hard to hard with depth.
- e. Complete soil profiles are presented on the Logs of Exploratory Borings and the boring locations are shown on the Boring Location Plan in Appendix A.

#### 4. GEOTECHNICAL HAZARDS

- a. Potential geotechnical hazards to man made structures include ground shaking, surface rupture, landsliding, liquefaction, lateral spreading, and differential compaction. The potential for each of these to impact the site is discussed below.
- b. Ground shaking caused by earthquakes is a complex phenomenon. Structural damage can result from the transmission of earthquake vibrations from the ground into the structure. The intensity of an earthquake at any given site depends on many variables including, the proximity of the site to the hypocenter, and the characteristics of the underlying soil and/or rock. In the event of moderate ground motion, structures with the proper seismic parameters incorporated into their design and construction should only incur nonstructural damage. Upon review of the Maps of Known Active Faults prepared by California Department of Conservation's Division of Mines and Geology (DMG 1998), the subject site is situated approximately 11 kilometers from the Zayante-Vergeles Fault (Type B), and approximately 15 kilometers from the San Andreas Fault (Type A). Therefore, we recommend all proposed structures at the subject site be designed with the corresponding seismic design parameters in accordance with the 2001 California Building Code (CBC 2001) presented in **Table 1**.

**Table 1**  
2001 CBC Seismic Design Criteria

SEISMIC DESIGN CRITERIA						
Soil Profile Type	Seismic Zone, Z	Seismic Coefficients		Near Source Factors		Seismic Source Type
		$C_a$	$C_v$	$N_a$	$N_v$	
$S_c$	0.4	$0.40 N_a$	$0.56 N_v$	1.0	1.0	A

- c. Surface rupture usually occurs along lines of previous faulting. The nearest known active fault is approximately 11 kilometers from the subject site, therefore, the potential for surface rupture should be considered low.
- d. Landslides are generally mass movements of loose rock and soil, both dry and water saturated, and usually gravity driven. The area proposed for development has no appreciable vertical relief, therefore, the potential for landsliding to occur on the southeast portion of the parcel and cause damage to structures should be considered low.
- e. Liquefaction, lateral spreading, and differential compaction tend to occur in loose, unconsolidated, noncohesive soils with shallow groundwater. The presence of relatively dense soils and the absence of shallow groundwater suggests that the potential for these hazards to occur should be considered low.

## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1 General

- a. Based on the results of our investigation, it is our opinion that from the geotechnical standpoint, the subject site will be suitable for the proposed development provided the recommendations presented herein are implemented during grading and construction.

- b. Based on the highly expansive nature of the near-surface soils, it is our opinion that the subject site will be suitable for the support of the proposed structures on a **foundation system composed of drilled, cast-in-place, concrete shafts and grade beams**. As an alternative, the proposed structures may be founded on conventional shallow foundations provided the highly expansive, native soils are removed and replaced with **granular, non-expansive import soils beneath the footings**. Recommendations for these foundation systems are provided in section 5.3, Foundations. Recommendations for the replacement of the expansive soils beneath the conventional shallow foundation system alternative, are provided in section 5.2.6, Preparation of On-Site Soils.
- c. Laboratory test results indicate that the native, near-surface soils are slightly to moderately compressible under the anticipated loads and highly expansive. Site preparation, consisting of removal of the native near-surface soils, and replacement with granular, non-expansive import soils will be required prior to placement of shallow foundations, slabs-on-grade, and pavements. See section 5.2.6 for Preparation of On-Site Soil recommendations.
- d. Grading will not adversely affect, nor be adversely affected by, adjoining property, with due precautions being taken.
- e. It is assumed that final grades will not vary more than 2± feet from current grades. Significant variations will require that these recommendations be reviewed.
- f. At the time we prepared this report, grading and foundation plans had not been finalized. We request an opportunity to review these plans during the design stages to determine if supplemental recommendations will be necessary.
- g. The design recommendations of this report must be reviewed during the grading phase when subsurface conditions in the excavations become exposed.
- h. Field observation and testing must be provided by a representative of Rock Solid Engineering, Inc., to enable them to form an opinion regarding the adequacy of the site preparation, and the extent to which the earthwork is performed in accordance with the geotechnical conditions present, the requirements of the regulating agencies, the project specifications and the recommendations presented in this report. Any earthwork performed in connection with the subject project without the full knowledge of, and not under the direct observation of Rock Solid Engineering, Inc., the Geotechnical Consultant, will render the recommendations of this report invalid.

- i. **The Geotechnical Consultant should be notified at least five (5) working days prior to any site clearing or other earthwork operations** on the subject project in order to observe the stripping and disposal of unsuitable materials and to ensure coordination with the grading contractor. During this period, a preconstruction conference should be held on the site to discuss project specifications, observation/testing requirements and responsibilities, and scheduling. This conference should include at least the Grading Contractor, the Architect, and the Geotechnical Consultant.

## 5.2 Grading

### 5.2.1 General

All grading and earthwork should be performed in accordance with the recommendations presented herein and the requirements of the regulating agencies.

### 5.2.2 Site Clearing

- a. Prior to grading, the areas to be developed for structures, pavements and other improvements, should be stripped of any vegetation and cleared of any surface or subsurface obstructions, including any existing foundations, utility lines, basements, septic tanks, pavements, stockpiled fills, and miscellaneous debris.
- b. All pipelines encountered during grading should be relocated as necessary to be completely removed from construction areas or be capped and plugged according to applicable code requirements.
- c. Any wells encountered shall be capped in accordance with **Santa Cruz County** Health Department requirements. The strength of the cap shall be at least equal to the adjacent soil and shall not be located within 5 feet of any structural element.
- d. Surface vegetation and organically contaminated topsoil should be removed from areas to be graded. The required depth of stripping will vary with the time of year the work is done and must be observed by the Geotechnical Consultant. It is generally anticipated that the required depth of stripping will be 6 to 12 inches.
- e. Holes resulting from the removal of buried obstructions that extend below finished site grades should be backfilled with compacted engineered fill.

EXHIBIT E

### 5.2.3 Excavating Conditions

- a. We anticipate that excavation of the on-site soils may be accomplished with standard earthmoving and trenching equipment.
- b. Although not anticipated, any excavations adjacent to existing structures should be reviewed, and recommendations obtained to prevent undermining or distress to these structures.

### 5.2.4 Fill Material

- a. The on-site soils **may not** be used as compacted fill beneath conventional shallow foundations, slabs-on-grade, and pavements.
- b. All imported soils to be used as fill, should be granular, non-expansive, and free organics, debris, and cobbles over 6 inches in maximum dimension.
- c. Proposed import soils may require laboratory testing for suitability prior to being used as fill material.

### 5.2.5 Fill Placement and Compaction

- a. Any fill or backfill required should be placed in accordance with the recommendations presented below.
- b. With the exception of the upper 6 inches of subgrade in pavement and driveway areas, material to be compacted or reworked should be moisture-conditioned or dried to achieve near-optimum conditions, and compacted to achieve a minimum relative compaction of 90%. The upper 6 inches of subgrade in pavement and drive areas and all aggregate base and subbase shall be compacted to achieve a minimum relative compaction of 95%. The placement moisture content of imported material should be evaluated prior to grading.
- c. The relative compaction and required moisture content shall be based on the maximum dry density and optimum moisture content obtained in accordance with ASTM D-1557.
- d. Fill should be compacted by mechanical means in uniform horizontal loose lifts not exceeding 8 inches in thickness.

EXHIBIT E

- e. Imported fill material should be approved by the Geotechnical Consultant prior to importing. Soils having a significant expansion potential should not be used as imported fill. The Geotechnical Consultant should be notified not less than 5 working days in advance of placing any fill or base course material proposed for import. Each proposed source of import material should be sampled, tested and approved by the Geotechnical Consultant prior to delivery of any soils imported for use on the site.
- f. All fill should be placed and all grading performed in accordance with applicable codes and the requirements of the regulating agency.

#### 5.2.6 Preparation of On-Site Soils

- a. **Drilled, cast-in-place, concrete shafts** will require no over excavation or recompaction of native material below foundation elements. The only earthwork anticipated for this foundation system is that required beneath the grade beams. Based on our laboratory test results, we recommend the highly expansive native subgrade beneath all grade beams be replaced with a minimum of 1 foot of granular, non-expansive imported material. Crushed rock may be used. **Prior to placing fill, the excavation bottom shall be presoaked 5 percentage points above optimum, or 125% of optimum, whichever is greater; to a depth of 2.0 feet.**
- b. Laboratory test results indicate that the native, near-surface soils are slightly to moderately compressible under the anticipated loads and highly expansive. Site preparation, consisting of removal of the native near-surface soils, and replacement with granular, non-expansive import soils will be required prior to placement of shallow foundations, slabs-on-grade, and pavements.
- c. The highly expansive, native, subgrade beneath **conventional shallow foundations and interior slabs-on-grade** should be over excavated to a depth of 1.5 feet below the bottom of the footings, or 2.0 feet below the bottom of the capillary break material (slabs), whichever is greater, and replaced with granular, non-expansive imported material. **Prior to placing fill, the excavation bottom shall be presoaked 5 percentage points above optimum, or 125% of optimum, whichever is greater; to a depth of 2.0 feet.**

- d. The highly expansive, native, subgrade beneath **pavements and exterior slabs-on-grade** should be over excavated to a depth of 1.0 foot below the bottom of the aggregate base coarse and/or capillary break material, and replaced with granular, non-expansive imported material. **Prior to placing fill, the excavation bottom shall be presoaked 5 percentage points above optimum, or 125% of optimum, whichever is greater; to a depth of 2.0 feet.**
- e. The zone of compacted fill must extend a minimum of 3 feet laterally beyond all conventional shallow foundations, slabs-on-grade, and pavements.
- f. Prior to placing fill, the exposed surface should be scarified to a depth of 6 to 8 inches, moisture conditioned, and compacted.
- g. Settlements may need to be evaluated should the planned grades result in the ground surface being raised more than  $2\pm$  feet above existing grades. Should this occur, some additional reworking of existing materials may be required.
- h. The depths of reworking required are subject to review by the Geotechnical Consultant during grading when subsurface conditions become exposed.

#### 5.2.7 Expansive Soils

Based on our laboratory testing, the native, near-surface soils should be considered to have a **high** expansion potential.

#### 5.2.8 Sulfate Content

The results of our laboratory testing indicate that the soluble sulfate content of the on-site soils likely to come into contact with concrete is below the 150 ppm generally considered to constitute an adverse sulfate condition. **Type II cement** is therefore considered adequate for use in concrete in contact with the on-site soils.

#### 5.2.9 Surface Drainage

- a. Pad drainage should be designed to collect and direct surface water away from structures and slope faces to approved drainage facilities. A minimum gradient of  $2\pm$  percent should be maintained and drainage should be directed toward approved swales or drainage facilities. Concentrations of surface water runoff should be handled by providing the necessary structures, paved ditches, catch basins, etc.

- b. All roof eaves should be guttered with the outlets from the downspouts provided with adequate capacity to carry the storm water away from the structure to reduce the possibility of soil saturation and erosion. The connection should be to a closed conduit which discharges at an approved location away from the structure and the graded area.
- c. The surface soils are classified as **moderately erodible**. Therefore, the finished ground surface should be planted with erosion resistant landscaping and ground cover and continually maintained to minimize surface erosion.
- d. Drainage patterns approved at the time of construction should be maintained throughout the life of the structures. The building and surface drainage facilities must not be altered nor any grading, filling, or excavation conducted in the area without prior review by the Geotechnical Consultant.
- e. Irrigation activities at the site should be controlled and reasonable. Planter areas should not be sited adjacent to walls without implementing approved measures to contain irrigation water and prevent it from seeping into walls and under foundations and slabs-on-grade. Large trees should be planted a minimum distance of ½ their mature height away from the foundation.

#### 5.2.10 Utility Trenches

- a. Bedding material may consist of sand with SE not less than 20 which may then be jetted, unless local jurisdictional requirements govern.
- b. Existing on-site soils may be utilized for trench backfill, provided they are free of organic material and rocks over 6 inches in diameter.
- c. If sand is used, a 3 foot concrete plug should be placed in each trench where it passes under the exterior footings.
- d. Backfill of all exterior and interior trenches should be placed in thin lifts and mechanically compacted to achieve a relative compaction of not less than 95% in paved areas and 90% in other areas per ASTM D-1557. Care should be taken not to damage utility lines.
- e. Utility trenches that are parallel to the sides of a building should be placed so that they do not extend below a line sloping down and away at an inclination of 2:1 (H:V) from the bottom outside edge of all footings.

EXHIBIT E



- f. Trenches should be capped with 1.5± feet of impermeable material. Import material must be approved by the Geotechnical Consultant prior to its use.
- g. Trenches must be shored as required by the local regulatory agency, the State Of California Division of Industrial Safety Construction Safety Orders, and Federal OSHA requirements.

### 5.3 Foundations

#### 5.3.1 General

- a. Based on the highly expansive nature of the near-surface soils, it is our opinion that the subject site will be suitable for the support of the proposed structures on a **foundation system composed of drilled, cast-in-place, concrete shafts and grade beams**. As an alternative, the proposed structures may be founded on conventional shallow foundations provided the highly expansive, native soils are removed and replaced with granular, non-expansive import soils beneath the footings.
- b. At the time we prepared this report, grading and foundation plans had not been finalized. We request an opportunity to review these plans during the design stages to, determine if supplemental recommendations will be necessary.

#### 5.3.2 Drilled Cast-In-Place Concrete Shafts

- a. It is our recommendation that the **drilled cast-in-place concrete shafts** have a **minimum embedment depth of 8 feet** below lowest adjacent grade.
- b. We recommend that all **grade beams** have a **minimum embedment depth of 12 inches** below lowest adjacent grade.
- c. The minimum recommended **shaft diameter** is **18 inches**.
- d. The estimated allowable downward and pullout capacities for 18 inch and 24 inch diameter, drilled, cast-in-place, concrete shafts are presented in **Figures 2.1 and 2.2** for the proposed construction. These were computed assuming a minimum embedment depth of 8 feet. These capacities do not include the weight of the shaft.

Project No. 05044  
December 16, 2008

C. B. Construction  
P.O. Box 1396  
Capitola, California 95010

ATTN: Cliff Bixler

SUBJECT: **UPDATE TO GEOTECHNICAL INVESTIGATION REPORT**  
Proposed Townhouse Development  
1175 7<sup>th</sup> Avenue, Santa Cruz County, California  
APN 026-211-19

REFERENCES: See Attached

Dear Mr. Bixler:

Per the request of the County of Santa Cruz and with your authorization, we are providing this update to the Geotechnical Investigation report prepared by our firm in November, 2005. In addition to the updates to the referenced report, at your request, we have prepared further recommendations for subsurface drainage at the site.

It is our understanding that the proposed development of the site has changed from a minor land division to a townhouse development. In addition, retention/detention of the storm water runoff is being proposed for the rear of the site. We have completed three infiltration tests in the area proposed for the retention/detention at varying depths. The results of the infiltration testing are presented in Appendix A.

As the California Building Code has recently been updated (effective January 1, 2008), we have made the following revisions to the geotechnical hazards (section 4), fill placement and compaction (section 5.2.5), and surface drainage (section 5.2.9) portions of the report to conform to the 2007 California Building Code.

The remaining portions of the Geotechnical Investigation report generally continue to apply.

#### 4. GEOTECHNICAL HAZARDS

The following seismic design criteria has been updated in accordance with Section 1613 of the 2007 CBC.

The subject site is situated at the approximate latitude of 36°58'29" and longitude -121°59'45". The project location (latitude and longitude) were used in conjunction with the U.S. Geologic Survey website (reference 3) to obtain the seismic design parameters presented in **Table 1**.

**Table 1**  
2007 CBC Seismic Design Criteria

SEISMIC DESIGN CRITERIA					
Site Class	Seismic Design Category	Spectral Response Accelerations			
		SMs	SM1	SDs	SD1
C	D	1.500	0.780	1.000	0.520

5.2.5 Fill Placement and Compaction

- a. Any fill or backfill required should be placed in accordance with the recommendations presented below.
- b. With the exception of the upper 6 inches of subgrade in pavement and driveway areas, material to be compacted or reworked should be moisture-conditioned or dried to achieve near-optimum conditions, and compacted to achieve a minimum relative compaction of 90%. The upper 6 inches of subgrade in pavement and drive areas and all aggregate base and subbase shall be compacted to achieve a minimum relative compaction of 95%. The placement moisture content of imported material should be evaluated prior to grading.
- c. The relative compaction and required moisture content shall be based on the maximum dry density and optimum moisture content obtained in accordance with ASTM D-1557.
- d. The in-place dry density and moisture content of the compacted fill shall be tested in accordance with ASTM D-6780 or ASTM D-2922/ASTM D-3017.
- e. The number and frequency of field tests required will be based on applicable county standards and at the discretion of the Geotechnical Consultant. As a minimum standard every 1 vertical foot of engineered fill placed within a building pad area, and every 2 vertical feet in all other areas shall be tested, unless specified otherwise by a Rock Solid Engineering, Inc. representative.
- f. Fill should be compacted by mechanical means in uniform horizontal loose lifts not exceeding 8 inches in thickness.

- g. Imported fill material should be approved by the Geotechnical Consultant prior to importing. Soils having a significant expansion potential should not be used as imported fill. The Geotechnical Consultant should be notified not less than 5 working days in advance of placing any fill or base course material proposed for import. Each proposed source of import material should be sampled, tested and approved by the Geotechnical Consultant prior to delivery of any soils imported for use on the site.
- h. All fill should be placed and all grading performed in accordance with applicable codes and the requirements of the regulating agency.

#### 5.2.9 Surface Drainage

- a. Pad drainage should be designed to collect and direct surface water away from structures and slope faces to approved drainage facilities. A minimum gradient of 5 percent for a distance of no less than 10 feet measured perpendicularly from the wall face, should be maintained and drainage should be directed toward approved swales or drainage facilities. If 10 horizontal feet can not be satisfied due to lot lines or physical constraints, the drainage shall be designed in accordance with the requirements of Section 1803.3 of the 2007 California Building Code.
- b. Swales and impervious surfaces shall be sloped a minimum of 2 percent towards an approved drainage inlet or discharge point.
- c. Concentrations of surface water runoff should be handled by providing the necessary structures, paved ditches, catch basins, etc. Drainage shall not be allowed to drain to the coastal bluff.
- d. All roof eaves should be guttered with the outlets from the downspouts provided with adequate capacity to carry the storm water away from the structure to reduce the possibility of soil saturation and erosion. The connection should be to a closed conduit which discharges at an approved location away from the structure and the graded area.
- e. The surface soils are classified as **moderately erodible**. Therefore, the finished ground surface should be planted with erosion resistant landscaping and ground cover and continually maintained to minimize surface erosion.
- f. Drainage patterns approved at the time of construction should be maintained throughout the life of the structures. The building and surface drainage facilities must not be altered nor any grading, filling, or excavation conducted in the area without prior review by the Geotechnical Consultant.

EXHIBIT E 1

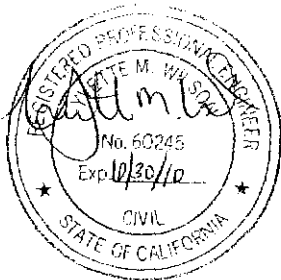
ATTACHMENT 2

- g. Irrigation activities at the site should be controlled and reasonable. Planter areas should not be sited adjacent to walls without implementing approved measures to contain irrigation water and prevent it from seeping into walls and under foundations and slabs-on-grade. Large trees should be planted a minimum distance of  $\frac{1}{2}$  their mature height away from the foundation.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

**ROCK SOLID ENGINEERING, INC.**



Signed: 12/16/08

Yvette M. Wilson, P.E.  
Principal Engineer  
R.C.E. 60245  
Expires 06/30/10

Distribution: (4) Addressee

Attachments: References  
Appendix A: Infiltration Testing Program

### REFERENCES

1. California Building Standards Commission, 2007, 2007 California Building Code, California Code Regulations, Title 24, Part 2, Volume 2, Effective January 1, 2008.
2. Rock Solid Engineering, Inc., Geotechnical Investigation Report, Proposed Minor Land Division, 1175 7<sup>th</sup> Avenue, Santa Cruz County, California, A.P.N. 026-211-19, Project No. 05044, Dated November 14, 2005.
3. U.S. Geologic Survey, Earthquake Ground Motion Parameter Java Application. Seismic Design Value for Buildings. Site Updated November 30, 2007, Site Utilized November 12, 2008. <http://www.liu.edu/CWIS/CWP/library/workshop/citmla.htm>
4. Whitson Engineers, Site Plan, 1175 7<sup>th</sup> Avenue, Santa Cruz, California 95062, Digital Copy, Undated.

## APPENDIX A

### INFILTRATION TESTING PROGRAM

- Infiltration Testing Procedures Page A-1
- Infiltration Test Results Table A-1

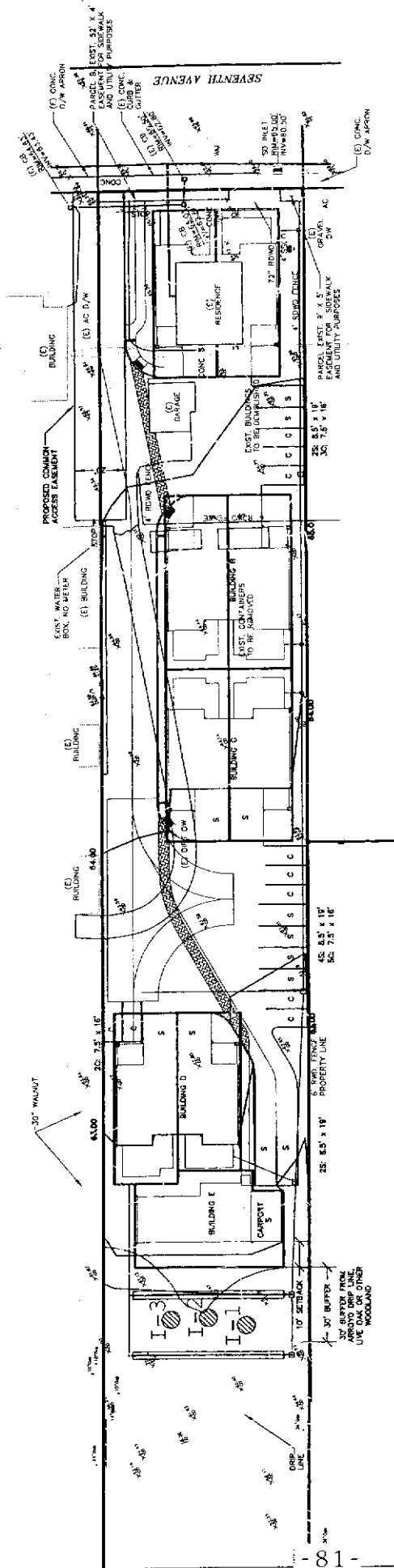
## INFILTRATION TESTING PROCEDURES

- A-1. Infiltration testing was performed in several areas of the property indicated by the Project Civil Engineer to be a potential location for retention/detention. The location of the infiltration holes I-1, I-2, and I-3 are presented on the Infiltration Location Plan, **Figure A-1**.
- A-2. Infiltration holes I-1 through I-3 were advanced by hand with a 4 inch diameter auger. The holes were drilled to depths of approximately 2 feet (I-1), 5 feet 5 inches (I-2), and 3 feet 3.5 inches (I-3) below existing grade. Four inch diameter perforated PVC pipe was inserted and surrounded by 3/8 inch pea gravel to prevent potential collapse of the holes. The test holes were pre-soaked 24 hours prior to the testing.
- A-3. The infiltration tests were generally performed in accordance with the "constant head" method infiltration testing procedures. The infiltration tests were performed by adding approximately 6 inches of water "head" to each test hole. The water elevation was measured at approximately 15 minute intervals and filled to the initial elevation after each reading was made. The infiltration rates were allowed to stabilize prior to completion of testing. The final infiltration rates are presented in **Table A-1**.

**Table A-1**  
Infiltration Test Results

Infiltration Hole #	Depth	Material Type (bottom of hole)	Final Infiltration Rate (inches/hour)
I-1	2'	Sandy Clay	8
I-2	5' -5"	Sandy Siltstone	4
I-3	3'-3.5"	Clay	2





SCALE: 1"=40'

BASE MAP TAKEN FROM  
PRELIMINARY PLANS  
PREPARED BY WHITSON  
ENGINEERS

EXHIBIT E

# INFILTRATION LOCATION PLAN 1175 7TH AVENUE SANTA CRUZ, CALIFORNIA

FIGURE  
A-1

5/89

Rock Solid Engineering, Inc.

Project No. 05044

May 27, 2009

C.B. Construction  
P.O. Box 1396  
Capitola, California 95010

ATTN: Cliff Bixler

SUBJECT: **GEOTECHNICAL PLAN REVIEW**  
Preliminary Improvement Plans and Vesting Tentative Map  
Proposed Townhouse Development - Harbor Townhomes  
1175 7<sup>th</sup> Avenue, Santa Cruz County, California  
A. P. N.: 026-211-19

REFERENCES: Rock Solid Engineering, Inc., Geotechnical Investigation Report, Proposed Minor Land Division, 1175 7<sup>th</sup> Avenue, Santa Cruz County, California, APN.: 026-211-19, Project No. 05044, Dated November 14, 2005.

Rock Solid Engineering, Inc., Update to Geotechnical Investigation Report, Proposed Minor Land Division, 1175 7<sup>th</sup> Avenue, Santa Cruz County, California, APN.: 026-211-19, Project No. 05044, Dated December 16, 2008.

Dear Mr. Bixler:

1. INTRODUCTION

- a. Per your request, we have reviewed the following project plans for the subject property:
  - i. Whitson Engineers, Harbor Townhomes- Tract 1555, Santa Cruz County, California, APN: 026-211-19, Sheets 1, 2, 3 & 4, Job No. 2333.00, Dated February 2009, Revised May 2009.
- b. The purpose of our review was to ensure the conformance of the geotechnical aspects of the plans with the geotechnical conditions present on the site and with the recommendations provided in the referenced reports.

2. CONCLUSIONS AND RECOMMENDATIONS

- a. It is our opinion that the plans reviewed are in general conformance with the geotechnical conditions present and with the recommendations presented in the referenced report. The proposed project is considered feasible from the geotechnical standpoint provided the site is graded in conformance with the Santa Cruz County Grading Code and the recommendations of our report are incorporated into the construction.

- b. In response to Comment #3 by Environmental Planning, we have reviewed and approved the proposed drainage outlet location.
- c. The recommendations presented herein and in the referenced report should not be considered to preclude more restrictive criteria by the governing agencies or by structural considerations.
- d. In the event that changes are made to the plans, the revised plans should be forwarded to the Geotechnical Consultant to review for conformance with the previous recommendations.
- e. Observation and testing services should be provided by Rock Solid Engineering, Inc. during construction of the subject project. All earthwork must be observed and approved by the Geotechnical Consultant. Any earthwork performed without the full knowledge and observation of Rock Solid Engineering, Inc. will render the recommendations of this review invalid. During grading, all excavation, fill placement and compaction operations should be observed and field density testing should be performed to evaluate the suitability of the fill, and to determine that the applicable recommendations are incorporated during construction.

3. LIMITATIONS

- a. Our review was performed in accordance with the usual and current standards of the profession, as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this review.
- b. As in most projects, conditions revealed during construction may be at variance with preliminary findings. Should this occur, the changed conditions must be evaluated by the Geotechnical Consultant and revised recommendations provided as required.
- c. This report is issued with the understanding that it is the responsibility of the Owner, or his Representative, to ensure that the information and recommendations presented herein are brought to the attention of the Architect and Engineers for the project and incorporated into the plans, and that the Contractor and Subcontractors implement such recommendations in the field.
- d. This firm does not practice or consult in the field of safety engineering. We do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.

- e. The findings of this review are considered valid as of the present date. However, changes in the conditions of a site can occur with the passage of time, whether due to natural events or human activity on this or adjacent sites. In addition, changes in applicable or appropriate codes and standards may occur as a result of legislation or a broadening of knowledge. Accordingly, this review may become invalidated, wholly or partially, by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.
- f. Our review addresses the geotechnical aspects of the plans **only**. Our firm makes no warranty, expressed or implied, as to the suitability or adequacy of any other aspect of the plans. All other aspects of the plans are specifically excluded from the scope of this review.

It is a pleasure being associated with you on this project. If you have any questions or if we may be of further assistance please do not hesitate to contact our office.

Sincerely,

**ROCK SOLID ENGINEERING, INC.**



Signed: 5/27/09

Yvette M. Wilson, PE  
Principal Engineer  
R.C.E. 60245  
Registration Expires 06/30/10

Distribution: (1) Addressee  
(3) Martha Shedden, Whitson Engineers

\\Freenas\\main\\2005 Project Files\\05044 7th Avenue\\05044 052709 Plan Review Letter.wpd



# COUNTY OF SANTA CRUZ

## PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

**TOM BURNS, PLANNING DIRECTOR**

April 3, 2009

Clifford and Lise Bixler  
PO Box 94  
Santa Cruz, CA 95063

**Subject: Review of Geotechnical Investigation by  
Rock Solid Engineering, Inc., Dated November 14, 2005;  
Update to Geotechnical Investigation Report, dated December 16, 2008  
APN 026-211-19, Application #: 09-0035, Project #: 05044**

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. Plans shall also provide a thorough and realistic representation of all grading necessary to complete this project
3. Prior to the discretionary application being deemed complete 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, and specifically approve the drainage outlet location.
4. 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 final project plans conform to the report's recommendations.
5. Please provide an electronic copy of the soils report and addendum in .pdf format. This document may be submitted on compact disk or emailed to [carolyn.banti@co.santa-cruz.ca.us](mailto:carolyn.banti@co.santa-cruz.ca.us).

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.

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

Please call the undersigned at (831) 454-5121 if we can be of any further assistance.

Sincerely,

Carolyn Banti  
Associate Civil Engineer

Cc: Robin Bolster-Grant, Project Planner  
Rock Solid Engineering, Inc.

**NOTICE TO PERMIT 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 engineer 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 and per the requirements of the 2007 California Building Code. 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 recommendations of 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 conformance with 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.

# DRAINAGE CALCULATIONS

For

HARBOR TOWNHOMES  
TRACT 1555

APN: 026-211-19

1175 Seventh Avenue  
Santa Cruz, California



Prepared by:

Whitson Engineers  
2425 Porter Street, Suite 2  
Soquel, CA 95073

Prepared:

May 2009  
Rev. October 2009

Project 2333.00

EXHIBIT E

10 YR PERCOLATION CALCULATIONS  
HARBOR TOWNHOMES  
APN: 026-211-19  
APPLICATION: 09-0035

Site Location P60 Isopleth:	1.5
C (pervious)	0.25
C (impervious)	0.09
Pervious Area (post)	3,333.33
Impervious Area (post)	3,333.33
Pervious Area (pre)	3,333.33
Impervious Area (pre)	3,333.33
Percolation rate (in/hr)	0.0002
Percolation Rate (ft/sec)	4.63E-05
Total Area	0.46
C (post)	0.90
C (pre)	0.25

Trench Criteria				
Length (ft)	Width (ft)	Depth (ft)	Void Ratio	Area (sf)
55.0	5.0	8.0	0.4	275
				880

New Impervious (24,018) - Existing Impervious (3,812) = 20,206 = 0.46 AC

10 - Year Design Storm (Post-development)				
Storm Duration (min)	10-year Intensity (in/hr)	10 - Year Q <sub>post</sub> (cfs)	V <sub>in</sub> (cf)	
1440	0.26	0.106	9191	
1200	0.28	0.115	8275	
960	0.31	0.126	7277	
720	0.34	0.143	6165	
480	0.41	0.169	4881	
360	0.46	0.191	4136	
240	0.55	0.227	3274	
180	0.62	0.257	2774	
120	0.74	0.305	2196	
90	0.83	0.345	1861	
60	0.99	0.409	1473	
45	1.12	0.462	1248	
30	1.33	0.549	988	
20	1.57	0.652	782	
15	1.78	0.737	663	
10	2.11	0.875	525	
5	2.83	1.173	352	

10 - Year Design Storm (Pre-development)				
Storm Duration (min)	10-year Intensity (in/hr)	10 - Year Q <sub>pre</sub> (cfs)	V <sub>in</sub> (cf)	
1440	0.26	0.030	17676	
1200	0.28	0.032	14730	
960	0.31	0.035	11784	
720	0.34	0.040	8838	
480	0.41	0.047	5892	
360	0.46	0.053	4419	
240	0.55	0.063	2946	
180	0.62	0.071	2210	
120	0.74	0.085	1473	
90	0.83	0.096	1105	
60	0.99	0.114	757	
45	1.12	0.128	552	
30	1.33	0.152	368	
20	1.57	0.181	246	
15	1.78	0.205	184	
10	2.11	0.243	123	
5	2.83	0.326	61	

Percolation Release (Outflow)		Percolation Release (Inflow)	
Percolation Release (cfs)	V <sub>out-1</sub> (cf)	Percolation Release (cfs)	V <sub>in-1</sub> (cf)
0.01	1100.0	0.01	9191
0.01	916.7	0.01	8275
0.01	733.3	0.01	7277
0.01	550.0	0.01	6165
0.01	366.7	0.01	4881
0.01	275.0	0.01	4136
0.01	183.3	0.01	3274
0.01	137.5	0.01	2774
0.01	91.7	0.01	2196
0.01	68.8	0.01	1861
0.01	45.8	0.01	1473
0.01	34.4	0.01	1248
0.01	22.9	0.01	988
0.01	15.3	0.01	782
0.01	11.5	0.01	663
0.01	7.6	0.01	525
0.01	3.8	0.01	352

Storage Requirement (S)			
V <sub>in</sub> (cf)	V <sub>out-1</sub> (cf)	V <sub>out-2</sub> (cf)	S = V <sub>in</sub> - V <sub>out</sub> (cf)
9191	18776		-9585
8275	15647		-7372
7277	12517		-5241
6165	9388		-3223
4881	6259		-1378
4136	4894		-558
3274	3129		145
2774	2347		427
2196	1565		632
1861	1174		687
1473	782		691
1248	587		661
988	391		597
782	261		522
663	196		467
525	130		394
352	65		287

Detention Storage Required: 691 cf

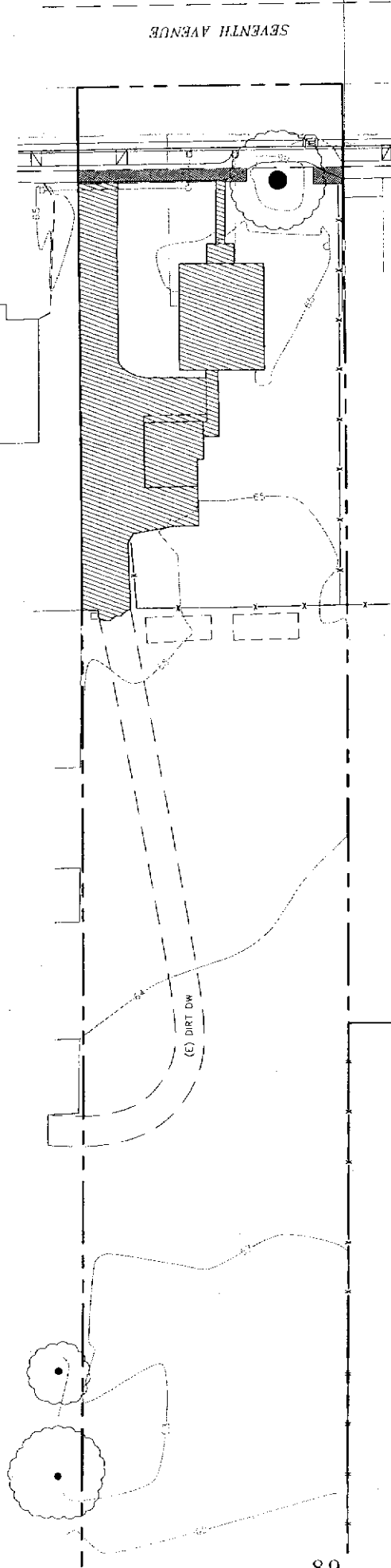
Detention Vol X 1.25 Safety: 864 cf

Required net volume in retention trench below level of pre-development release weir level  
0.0205 Pre-development release rate allowed through orifice to water spreader





(E) IMPERVIOUS AREA:  
DW & PARKING: 2,620 SF  
BUILDINGS: 1,192 SF  
3,812 SF = 0.08 AC



**WE** **WHITSON ENGINEERS**  
2425 Porter Street • Suite 2 • Soquel, CA 95073  
831 464-9363 • Fax 831 464-2316  
Civil Engineering • Land Surveying • Project Management

SANTA CRUZ  
**HARBOR TOWNHOMES**  
EXISTING IMPERVIOUS AREA  
DRAWING PATH: V:\Watsonville Projects\2333\Drainage Calcs.dwg

DATE: OCT 2009 SHEET  
SCALE: 1" = 30'  
DRAWN: **EXHIBIT B**  
CHECKED: 2333.00  
PROJECT NO.: 61/89  
OF 2  
**ATTACHMENT 6**





Soil Reports • Site Assessments • Manufactured Home Foundations • Expert Witness • Real Estate Inspections

Project No. 05044

August 31, 2009

C. B. Construction  
91 Country Estates Road  
Santa Cruz, California 95060

ATTN: Cliff Bixler

SUBJECT: **SUITABILITY OF INFILTRATION AND PERMEABLE SURFACES**  
Proposed Townhouse Development  
1175 7<sup>th</sup> Avenue, Santa Cruz County, California  
APN 026-211-19

Dear Mr. Bixler:

The purpose of this letter is to address the suitability of infiltration and/or permeable pavement surfaces for the above referenced project.

It is my understanding that in order to satisfy county requirements, permeable pavement surfaces are being considered in the parking and drive areas. We are concerned that although the pavement surfaces can be constructed so that they are permeable, the underlying subgrade has a very low percolation rate and consists of highly expansive clays. Adding water to the subsurface clays will provide a repetitive change in moisture content of the clay thereby activating the expansion and contraction properties of highly expansive clay and softening of the pavement subgrade.

It is my understanding that appropriate soil for infiltration is a key design consideration for permeable pavement surfaces. Because the percolation rates at this site are very low and the subgrade is highly expansive, we do not recommend using permeable pavement surfaces.

In addition, the soil profile consists of clayey sands and clays underlain by approximately 5-7 feet of dense silty sands and then siltstone bedrock. The only relatively permeable soil layer is the 5-7 feet of dense sands. However, the sand layer is capped by clay and underlain by bedrock. We are concerned that attempting to inject water into the dense sand layer may cause unforeseen issues such as water traveling laterally instead of soaking in. The siltstone bedrock has a relatively low infiltration rate and will likely not accept a significant amount of storm water before backing up.

Because of this soil profile, we recommend that the surface water be collected in closed pipes or surface swales and brought to the back of the property. The water can then be discharged into a combination infiltration/detention trench. The trench can be designed such that when the trench volume is exceeded, the water can sheet flow from the top of the trench down the back of the property toward the existing gulch.

**EXHIBIT F**

Suitability of Infiltration and Permeable Surfaces  
1175 7<sup>th</sup> Avenue  
Santa Cruz, California

Project No. 05044  
August 31, 2009  
Page 2

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office.

Sincerely,

**ROCK SOLID ENGINEERING, INC.**

Yvette M. Wilson, P.E.  
Principal Engineer  
R.C.E. 60245  
Expires 06/30/10

Distribution: (3) Addressee and via email  
(1) Martha Shedden, Whitson Engineers via email



Hole 1 Surface

Depth 2'  
Diameter 5"

Initial Reading 3'6"

Fall In

Reading	Reading	Filled to (inches)	Time	Height change (inches)	Min/in	In/hr
1	42	36				
2	38.5	36	15 min	2.5	6	10
3	38.5	36	15 min	2.5	6	10
4	38.5	36	15 min	2.5	6	10
5	38.25	36	15 min	2.25	6.67	9
6	38.25	36	15 min	2.25	6.67	9
7	38	36	15 min	2	7.5	8
8	38	35	15 min	2	7.5	8
9	37.5	36	15 min	2.5	6	10
10	38	36	15 min	2	7.5	8
11	38	36	15 min	2	7.5	8
12	38.25	36	15 min	2.25	6.67	9
13	38	37	15 min	2	7.5	8
14	38.75	36	15 min	1.75	8.57	7
15	38	35	15 min	2	7.5	8
16	37.5	0		2.5	6	10
					6.9	8.8

EXHIBIT E

Hole 2

Depth 5'5" bedrock  
Width 5"

Initial Reading 9'8.5"

Fall In

Reading	Reading	Filled to (inches)	Time	Height change (inches)	Min/in	In/hr
1	114	95.5				
2	98	92	15 min	2.5	6	10
3	93	92	15 min	1	15	4
4	92.25	91.5	15 min	0.25	60	1
5	92.75	91	15 min	1.25	12	5
6	92	91	15 min	1	15	4
7	92.25	91	15 min	1.25	12	5
8	92	91	15 min	1	15	4
9	92	91	15 min	1	15	4
10	92	90	15 min	1	15	4
11	91.5	91	15 min	1.5	10	6
12	92	91	15 min	1	15	4
13	92	91	15 min	1	15	4
14	92	91	15 min	1	15	4
15	92	91	15 min	1	15	4
16	92	0		1	15	4
					16.7	4.5

Comments

EXHIBIT E

Hole 3

Depth 3'3.5" clay layer  
Width 5"

Initial Reading 6'4"

Fall In

Reading #	Reading	Filled to (inches)	Time	Height change (inches)	Min/in	In/hr
1	76	68				
2	70.5	66	15 min	2.5	6	10
3	68	66	15 min	2	7.5	8
4	67.25	66	15 min	1.25	12	5
5	67	65.5	15 min	1	15	4
6	66.5	66	15 min	1	15	4
7	67	66	15 min	1	15	4
8	66.25	65.5	15 min	0.25	60	1
9	66.5	66	15 min	1	15	4
10	66.5	66	15 min	0.5	30	2
11	66.25	66	15 min	0.25	60	1
12	66.5	65	15 min	0.5	30	2
13	66	65	15 min	1	15	4
14	65.5	65	15 min	0.5	30	2
15	65.5	65	15 min	0.5	30	2
16	65.5			0.5	30	2
					24.7	3.7

Comments



Santa Cruz County Survey Project

SCAS/CCATP Preliminary Reconnaissance  
Prepared for Santa Cruz County Planning Department

SCAS PROJECT # SE - 07-1077

Project data are not for public distribution. No part of these forms may be abstracted for an environmental impact report.

Applicant's Name County of Santa Cruz Phone \_\_\_\_\_

APN 026-211-19

Development Permit Application # NA Date Request Rec'd 2/6/0007

USGS Quad Soquel Date Mailed to County \_\_\_\_\_

Parcel size 1 1/2 to 2 acres UTMG 58947 <sup>40</sup> 9237

Description of the Proposed Project:

Proposing to rezone property to the RM-2 zone for high-density housing (20 units to the acre) with a high proportion of affordable units. The County ☒ continued pg 3

Previously recorded archaeological sites nearby:

1/4 mile E; 1/2 mile W

Prehistoric cultural resources evidence: Yes ☐ No ☒  
Explain: \_\_\_\_\_

☐ continued pg 3

Historic cultural resources evidence: Yes ☐ No ☐  
Explain: \_\_\_\_\_

☐ continued pg 3

Other comments: There is a house and out buildings on the south eastern portion of the property. Date of Construction unknown. Removal of structures unknown.

Santa Cruz County Survey Project

SE07-1077

Survey Method:

- 1. Covered: entire parcel ☐
- 2. Hit likely spots only ☒ If so, % of the total parcel covered 90%
- 3. Transect deployed ☒ Meters between crew members 10'
- 4. Gang style deployment ☐

Number of people on surveying 2 Time spent on the parcel 1/2 hr

Description of terrain:

Level ☐ Gentle Slope ☒ Steep ☐ Wooded ☐  
Open ☒ Other ☐

Soil Visibility:

- 1. Good ☐ because: recently plowed ☐ gopher activity ☒  
Other: visibility was good where gopher activity present
- 2. Average ☐
- 3. Poor ☐ because: thick grass ☒ brush + Berry Bashes ☒

Closest Fresh Water Source:

- 1. Distance from the parcel - on the western edge of the property
- 2. Type: spring ☐ Lake ☐ Stream/creek ☐  
Seasonal ☐ Year-round ☒
- 3. Name: Woods Lagoon

Artifacts collected: No ☒ Yes ☐ Where deposited? \_\_\_\_\_

Survey area hatched on APN map Yes ☒

Crew Leader: Lyn E. Niel Phone: 831-479-6294

Field Crew: Judy Hewitt

Date of Reconnaissance Feb. 13, 2007 Tuesday

Santa Cruz County Survey Project

Continuation Page

SE07-1077

is proposing 3-story ~~units~~ structures with  
attached units.

Page 3 of 4

EXHIBIT E

Santa Cruz County Survey Project

Exhibit B

Santa Cruz Archaeological Society  
1305 East Cliff Drive, Santa Cruz, California 95062

Preliminary Cultural Resources  
Reconnaissance Report

Parcel APN: 026-211-19

SCAS Project number: SE-07-1077

Development Permit Application No. NA

Parcel Size 1 1/2 to 2 acres

Applicant: Santa Cruz County

Nearest Recorded Cultural Resource: 1/4 mile E; 1/2 mile W

On 2/13/07 (date) two (#) members of the Santa Cruz Archaeological Society spent a total of 1/2 hour/s on the above described parcel for the purpose of ascertaining the presence or absence of cultural resources on the surface. Though the parcel was traversed on foot at regular intervals and diligently examined, the Society cannot guarantee the surface absence of cultural resources where soil was obscured by grass, underbrush, or other obstacles. No core samples, test pits or any subsurface analysis was made. A standard field form indicating survey methods, type of terrain, soil visibility, closest freshwater source, and presence or absence of prehistoric and/or historic cultural evidence was completed and filed with this report at the Santa Cruz County Planning Department.

The preliminary field reconnaissance did not reveal any evidence of cultural resources on the parcel. The proposed project would therefore, have no direct impact on cultural resources. If subsurface evidence of such resources should be uncovered during construction the County Planning Department should be notified.

Further details regarding this reconnaissance are available from the Santa Cruz County Planning Department or from Rob Edwards, Director, Cabrillo College Archaeological Technology Program, 6500 Soquel Drive, Aptos, CA 95003, (831) 479-6294, or email [redwards@cabrillo.edu](mailto:redwards@cabrillo.edu).

August 13, 2007

Matt Johnston  
Planning Department  
County of Santa Cruz  
701 Ocean Street  
Santa Cruz, CA 95060

Re: 7<sup>th</sup> Avenue High Density Housing Project Site Biotic Assessment

Dear Matt:

This letter reports the findings of a biotic assessment on the proposed 7<sup>th</sup> Avenue High Density Housing Project Site (Assessor's Parcel No. 082-040-19, 20, 22, 25), located on the west side of 7<sup>th</sup> Avenue approximately 1,000 feet north of its intersection with the Santa Cruz Harbor access road in the Live Oak Planning Area in central-coastal Santa Cruz County. This property is bordered on the western edge by Arana Gulch Creek and City of Santa Cruz open space area. This assessment focused primarily on the presence of special-status plants and wildlife within the area proposed for development. This development area consists of four linear rectangular parcels of which only parcel 19 was accessible for survey.

The U.S. Soil Conservation Service Soil Survey of Santa Cruz County (1980) classifies the soil on the 7<sup>th</sup> Avenue parcels as Watsonville loam, 0 to 15 percent slopes and Watsonville loam, thick surface, 0 to 2 percent slopes. This is the soil type found on the terrace portion of the parcels. The Watsonville loam soil is a very deep, somewhat poorly drained soil developed on coastal terraces. Permeability of Watsonville loam is very slow with slow to medium runoff potential and slight to moderate erosion hazard. The western boundary of the parcel is characterized by the drainage of Arana Gulch and supports Aquents, flooded soil substrates.

A field survey was conducted on the 7<sup>th</sup> Avenue High Density parcel Number 19 on 27 June 2007. The other parcels were observed at a distance from this parcel. The survey parcel is characterized by a flat, ruderal terrace field with several existing bungalow dwellings and parking areas in the central and eastern end of the parcel. The landscaping around the dwellings consists of a variety of horticultural plantings and garden plots. The highly compacted field is comprised of low growing non-native grassland with non-native herbs. The ruderal grassland/field is dominated by non-native grasses including rat-tail fescue (*Vulpia myuros*), slender wild-oat grass (*Avena barbata*), soft chess brome (*Bromus hordeaceus*), Italian rye grass (*Lolium multiflorum*), velvet grass (*Holcus lanatus*) and farmer's foxtail (*Hordeum leporinum*). Non-native herb species include wild radish (*Raphanus sativus*), English plantain (*Plantago lanceolata*), bur clover (*Medicago polymorpha*), and hairy cat's ear (*Hypochoeris radicata*). At the western edge of the parcel the terrace grades down a moderate slope into Arana Gulch. Here the vegetation is characterized by a dense tree canopy of coast live oak (*Quercus agrifolia*), blue gum (*Eucalyptus*

EXHIBIT E

ellen cooper & associates

landscape architects

Clifford Bixler  
41 Country Estates Dr.  
Santa Cruz, CA 95060

May 18, 2009

Project:  
1175 Seventh Avenue  
Santa Cruz, Ca.

Arborist Report

On May 18, 2009 I made a site visit to the project address to inspect several trees that may be impacted by the proposed development. Following is an inventory of the trees, an evaluation of there present condition and recommendations for care of the trees.

Tree #1 is a *Sequoia sempervirens* (Coast Redwood). The tree is located immediately adjacent to Seventh Avenue and 22'-6" southeast of the existing house. It is approximately 65' tall with a DBH (diameter at breast height) of 84" and an average crown spread of 30'. The trunk is relatively large compared to the height of the tree. This may in part be due to subsoil and drainage conditions. The tree has also been naturally or mechanically topped. There are several apically dominant trunks near the top, which would also slow the vertical growth of any one trunk. The tree appears to be free of disease and insect infestation. The foliage is in good condition and there is new growth.

The tree has been pruned by PG&E to provide clearance around the power lines located on the north side of Seventh Avenue. This has left a misshapen crown. I recommend that several of the lowest limbs of the tree be removed (within the first 10' of trunk with limbs, only) to lift the canopy and to improve the appearance of the tree.

EXHIBIT E

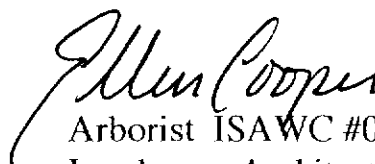
The base of the tree has numerous sprouts growing from the roots and root crown. I recommend that these sprouts be removed.

The proposed Building A will be approximately 17' from the base of the tree. The patio is shown 8' from the base of the tree. I recommend that the patio consist of a raised wood or composite deck on piers to minimize any damage to the roots of this tree. The deck piers shall be located in the field. Pier holes shall be excavated by hand. If roots over 2" diameter are encountered, the hole should be abandoned and backfilled and the pier location moved away from the root. All smaller roots should be cut cleanly and not torn.

Tree #2 is a *Juglans hindsii* (California Black Walnut). It is approximately 35' tall with an average crown spread of 40'. There are 8 trunks with DBH's of between 6" and 8". The trunks are connected at the root crown. The tree is likely the result of root sprouts of a *Juglans regia* (English Walnut) planted on *Juglans hindsii* root stock. The English Walnut likely went in to decline, was cut down or fell and the roots sprouted. The tree has significant die back and is in fair condition. I recommend that the most western leaning trunk and the dead and dying branches be removed.

Tree #3 is a *Juglans hindsii* (California Black Walnut). It is approximately 35' tall with an average crown spread of 35'. There are 6 trunks with DBH's of between 6" and 8". The trunks are connected at the root crown. The tree is the result of root sprouts of a *Juglans regia* (English Walnut) planted on *Juglans hindsii* root stock. The trunk and some branches of the English Walnut are still evident. The tree has significant die back and is in fair condition. I recommend that the dead and dying branches be removed.

Ellen Cooper



Arborist ISAWC #0848

Landscape Architect CA. Lic. #2937

EXHIBIT E

# Seventh Avenue

Riparian Area =  
appx. 2.71 acres

Riparian Buffer =  
appx. .72 acres

Appx. 3.1  
acres remaining

## Legend

- Subject Parcels
- Riparian Area (to dripline)
- 50' Riparian Buffer

0 62.5 125 250 375 500 Feet



Map Created by  
County of Santa Cruz  
Planning Department

EXHIBIT  
ATTACHMENT 1.0



**C O U N T Y   O F   S A N T A   C R U Z**  
**DISCRETIONARY APPLICATION COMMENTS**

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 1

---

**Environmental Planning Completeness Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON APRIL 3, 2009 BY ANTONELLA GENTILE =====

1. Provide an archeological survey prepared by a qualified professional archeologist for the development area.
2. Provide a report prepared by a certified arborist that makes recommendations for protection of the 72" redwood near 7th Avenue and the two trees on the property to the north whose canopies overlap this lot.
3. Show the riparian buffer and setback on the tentative map.
4. Provide a plan review letter from the project arborist stating that the grading and drainage plan, site plan, and landscape plan conform to their recommendations.

The following comments have been provided by Carolyn Banti, Associate Civil Engineer:

5. The soils report has been reviewed and accepted. Please see letter dated 4/3/09 and miscellaneous comments for additional information.
6. Please show the lateral extents of overexcavation and recompaction beneath slabs, foundations and pavements on the grading plan. Show the depth of overexcavation and recompaction beneath such features on all cross sections. (Please note the foundation type on the project plans to determine subexcavation requirements. Structural details are not necessary at this time.)
7. Please separate grading quantities for overexcavation/recompaction and those for site grading. Provide backup calculations for review.
8. Prior to the discretionary application being deemed complete, please provide a plan review letter from the soils engineer stating that the project plans conform to the report recommendations. The letter shall approve the drainage outlet location.

===== UPDATED ON JULY 9, 2009 BY ANTONELLA GENTILE =====

Project complete per Environmental Planning.

**Environmental Planning Miscellaneous Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON APRIL 3, 2009 BY ANTONELLA GENTILE =====

Compliance Issues

1. Although this project is mapped for the presence of the Zayante band-winged grasshopper, the species is not expected to occur on this parcel due to lack of habitat.
2. All development activities shall be prohibited within the riparian corridor and

---

**EXHIBIT E**

Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 2

riparian buffer area, including land clearing and grading. Plans should be revised to relocate drainage improvements and all grading outside of the riparian buffer in order for this agency to recommend approval of this application.

3. Fencing shall be required at the boundary between the development area and the riparian buffer. Show proposed fencing on the plans. A split-rail fence is recommended to allow passage of riparian corridor-associated wildlife.

4. All proposed patio improvements for the townhouses in building D should be shown at this time to verify compliance with the Riparian Protection ordinance, which does not allow construction activities and/or grading within the riparian buffer. Please note that the soils report requires overexcavation/recompaction of soils 3 feet laterally from the edge of all paved areas.

Conditions of Approval

The following conditions have been provided by Carolyn Banti, Associate Civil Engineer. Please note that additional conditions will be added once the completeness and compliance items above have been addressed.

1. As requested in the soils report acceptance letter, prior to building permit issuance please submit an electronic copy of the soils report in .pdf format via compact disk or email to carolyn.banti@co.santa-cruz.ca.us.

2. Prior to building permit issuance, please submit two original copies of a geotechnical plan review letter stating that the final project plans conform to the recommendations of the soils report.

3. Building permit plans shall include a note stating that all construction will comply with the recommendations of the soils report.

4. Building permit plans shall include notes on the foundation and grading plans that detail overexcavation and recompaction requirements to mitigate expansive soils.

5. Please submit an erosion control plan showing the location and installation details of proposed erosion control measures used to keep loose soils onsite during and after construction. ===== UPDATED ON JULY 9, 2009 BY ANTONELLA GENTILE =====

Additional compliance comments:

1. The landscape plan is inconsistent with the proposed site plan(A1) and the preliminary grading and drainage plan (2). Please revise for consistency.

2. The northwest corner of building D is shown less than ten feet from the riparian buffer on sheet A1. A ten-foot setback is required between the structure and the buffer. Please redesign the building to meet the setback.

3. The 30-foot buffer line shown on sheet A1 is inconsistent with the 30-foot buffer line shown on sheet 2 of the civil drawings. Please revise the drawings for consistency.

EXHIBIT 4

## Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 3

4. Show the limits of grading on sheet 2 of the civil drawings.
5. The arborist's report states that the western trunk of tree 2 should be removed, however it appears that one or more of the southern-leaning trunks will be affected by the proposed development. Revise the arborist's report to include a discussion of the southern-leaning trunks.

### Miscellaneous comments

1. A plan review letter from the project arborist is required prior to approval of this application to ensure consistency between the final plans and the arborist's report.
2. The split-rail fence or alternative fencing is not shown at the riparian buffer boundary, but will be required as a condition of approval.
3. Overexcavation and recompaction quantities for areas beneath the proposed residences have been omitted from the grading volume totals reported for this project. If building permit plans reflect conventional foundations for proposed residences, overexcavation and recompaction quantities for the areas beneath these should be included in the grading volume totals.

### Additional conditions of approval:

1. A split-rail fence shall be permanently constructed at the 30-foot buffer boundary prior to final of building D. The fence shall be shown on the improvement plans and all subsequent building permit plans.
2. Grading shall not be allowed within the riparian buffer and/or corridor.
3. Rear decks/patios in Building D shall be constructed on piers to avoid overexcavation and recompaction of the soil within the buffer.
4. An erosion control plan shall be required prior to approval of the improvement plans. The erosion control plan shall show a silt fence at the 30-foot buffer boundary and include this statement: "All construction, grading, and development activities are prohibited within the riparian corridor and buffer."
5. The arborist shall be on site during excavation around trees and branch pruning. A letter shall be provided to Environmental Planning detailing the arborist's observations during construction. This shall be noted on the plans.

### Housing Completeness Comments

Developer will need to provide a map of the subdivision clearly identifying the affordable unit. Also, the unit specifications (size, bedroom/bath count etc.) need to be identified to ensure the affordable unit is similar to all market rate homes.

### Housing Miscellaneous Comments

Pursuant to county Code 17.10, this project will have an affordable housing obligation.

## Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 4

tion of 1.35. One unit must be constructed under the terms of the Measure J program and the developer will be subject to a .35 fee. This fee is paid at the close of each market rate sale through escrow. Lastly, the developer must enter into a Participation Agreement with the County outlining what was discussed above. This is typically done after the project has been approved, but prior to the issuance of any building permits.

### Long Range Planning Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON JULY 1, 2009 BY GLENDA L HILL =====  
NO COMMENT

### Long Range Planning Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON JULY 1, 2009 BY GLENDA L HILL =====  
NO COMMENT

### Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON MARCH 27, 2009 BY TRAVIS RIEBER =====

1. The development must hold runoff levels to the 10 year pre-development rate. The development proposal must incorporate methods of design that include both resource and flood control protections, effective for a broad range of storms. Please provide a proposal consistent with County standards.

2. As proposed the Best Management Practices are not adequate for the amount of impervious area being proposed. This project is required to implement Best Management Practices, including alternative semi impervious surfacing for the driveway and parking areas on site to duplicate existing conditions, provide filtering of storm-water and treat smaller storms.

3. Make clear on the plans the locations of downspouts and where they will discharge. Also make clear on the plans the types of surfacing being proposed and their limits.

4. Site specific soils investigation may be used in lieu of the NRCS soils survey given that the investigation for permeability rate follows an appropriate standard testing methodology (which is included with the signed report along with a description of any variations from the standard method and justification as to why the variation is needed). The design permeability rate should be calculated based on the volume of water (taking into account gravel volumes) percolated per the wetted surface area per time.

5. This project drains toward drainage facilities within the City of Santa Cruz on Santa Cruz Port District property. It is recommended that these plans be routed to

Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 5

the City of Santa Cruz and the Santa Cruz Port District for review.

6. The applicant is encouraged to discuss the above comments with the reviewer to avoid unnecessary additional routings.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ===== UPDATED ON MARCH 27, 2009 BY TRAVIS RIEBER =====

===== UPDATED ON JULY 9, 2009 BY TRAVIS RIEBER =====

1. A check performed with the County sizing spread sheet shows that the proposed retention system is undersized for the amount of impervious area runoff being directed to it. The runoff from the existing impervious areas shall bypass the detention system. Any runoff not bypassed shall be included in the design of the detention system storage volume in addition to the volume required due to increased impervious area. (Per SCCDC Section G, 4 m)

2. For underground structural detention systems, the pre-project runoff flow shall bypass the detention facility so that the storage volume is used only for the additional runoff generated by the new development. (Per SCCDC Section G, 4 l)

3. As proposed the Best Management Practices are not adequate for the amount of impervious area being proposed. This project is required to implement BMPs, including alternative semi impervious surfacing for the driveway and parking areas on site to duplicate existing conditions, provide filtering of stormwater and treat smaller storms. While the response letter from Cliff Bixler states that pervious paving is not feasible due to 5 to 6 feet of impermeable soil, the infiltration test results show a much more permeable soil for the first 2 feet. Please clarify. Statements of non-feasibility must be made the appropriate professional(s). Also an alternative semi-pervious surfacing can be used with properly engineered sub-base and minimal grading even for cases of underlying existing impermeable material as described in this report.

4. Regarding the soil percolations rates there are very significant proportionality differences of volume and surface area between the dimensions of the test bore and the proposed design that have not been correlated. If such adjustments were made, permeability would be lower. It is not clear that this test and/or its results are appropriate as used with the design. Please submit the geotechnical engineer-s calculations which normalize the percolation test to the proposed design. The test results shall be normalized to reflect the proposed design and the geometry of the percolation system. Infiltration test results were made for test holes a maximum a 5.5 feet in depth while the proposed percolation facility extends 10 feet below the ground. In addition the location of the test hole is not provided. To be acceptable the test holes have to be in the same location as the proposed percolation facility.

===== UPDATED ON NOVEMBER 9, 2009 BY TRAVIS RIEBER =====

The civil plans with revisions dated 10/09 and drainage calculations revised 10/09 have been received and are approved for the discretionary application stage. Please see miscellaneous comments for comments to be addressed prior to recording the final map.

Dpw Drainage Miscellaneous Comments

EXHIBIT E

Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 6

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON MARCH 27, 2009 BY TRAVIS RIEBER =====

1. Please provide a cross section construction detail of the proposed drainage swale along the southern property line and the proposed infiltration trench.

2. Water quality treatment is required for the entirety of the parking lot. All catch basins shall be marked with the legend NO DUMPING DRAINS TO OCEAN. NO TIRE DESECHO CORRE AL MAR.

3. For fee calculations please provide tabulation of existing impervious areas and new impervious areas resulting from the proposed project. Make clear on the plans by shading or hatching the limits of both the existing and new impervious areas. To receive credit for the existing impervious surfaces please provide documentation such as assessor-s records, survey records, aerial photos or other official records that will help establish and determine the dates they were built.

Note: A drainage fee will be assessed on the net increase in impervious area. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

4. A recorded maintenance agreement will be required for the proposed retention system and water quality treatment units. Please contact the County of Santa Cruz Recorder-s office for appropriate recording procedure. The maintenance agreement form can be picked up from the Public Works office or can be found online at: <http://www.dpw.co.santa-cruz.ca.us/Storm%20Water/FigureSWM25.pdf>

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions. ===== UPDATED ON MARCH 27, 2009 BY TRAVIS RIEBER =====

===== UPDATED ON JULY 9, 2009 BY TRAVIS RIEBER =====

See previous comments ===== UPDATED ON NOVEMBER 9, 2009 BY TRAVIS RIEBER =====

1. Please provide sizing calculations for the predevelopment release orifice.

2. All catch basins shall be marked with the legend NO DUMPING DRAINS TO OCEAN. NO TIRE DESECHO CORRE AL MAR.

3. A recorded maintenance agreement is required for the proposed retention system. Please contact the County of Santa Cruz Recorder-s office for appropriate recording procedure. The maintenance agreement form can be picked up from the Public Works office or can be found online at: <http://www.dpw.co.santa-cruz.ca.us/Storm%20Water/FigureSWM25.pdf>

Note: A drainage fee will be assessed on the net increase in impervious area. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

Please call the Dept. of Public Works, Storm Water Management Section, from 8:00 am to 12:00 noon if you have questions.

EXHIBIT 11

Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 7

**Dpw Driveway/Encroachment Completeness Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON MARCH 30, 2009 BY DEBBIE F LOCATELLI =====

Site Inspection was completed. Driveway approaches shall meet the County of Santa Cruz Design Criteria. ===== UPDATED ON MARCH 30, 2009 BY DEBBIE F LOCATELLI =====

**Dpw Driveway/Encroachment Miscellaneous Comments**

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

===== REVIEW ON MARCH 30, 2009 BY DEBBIE F LOCATELLI =====

No comment.

**Dpw Road Engineering Completeness Comments**

===== REVIEW ON APRIL 2, 2009 BY RODOLFO N RIVAS =====

1) Provide a ten-foot right of way dedication from face of curb to property line. 2) Provide a six-foot utility easement dedication. 3) The project will be subject to Live Oak Transportation Improvement Area (TIA) fees at a rate of \$ 3,550.00 per lot (\$ 3,550.00 per lot X 9 lots = \$ 31,950.00). The total \$ 31,950.00 TIA fees is to be split evenly between transportation improvement fees and roadside improvement fees.

===== UPDATED ON APRIL 2, 2009 BY RODOLFO N RIVAS =====

4) Will the existing driveway continue to be shared with adjacent parcel? If driveway will not be shared with adjacent parcel, indicate how adjacent parcel will continue to maintain standard access; thus, as a result of this project, access to adjacent parcel is not affected negatively. ===== UPDATED ON JULY 2, 2009 BY RODOLFO N RIVAS =====

1) Provide a ten-foot right of way dedication from face of curb to property line. 2) Provide a six-foot public utility easement dedication. ===== UPDATED ON NOVEMBER 4, 2009 BY RODOLFO N RIVAS =====

Previous comments still apply. 1) Provide a ten-foot right of way dedication from face of curb to property line. 2) Provide a six-foot public utility easement dedication.

**Dpw Road Engineering Miscellaneous Comments**

===== REVIEW ON APRIL 2, 2009 BY RODOLFO N RIVAS =====

NO COMMENT

===== UPDATED ON APRIL 2, 2009 BY RODOLFO N RIVAS =====

===== UPDATED ON JULY 2, 2009 BY RODOLFO N RIVAS =====

NO COMMENT

===== UPDATED ON NOVEMBER 4, 2009 BY RODOLFO N RIVAS =====

NO COMMENT

**Dpw Sanitation Completeness Comments**

===== REVIEW ON APRIL 1, 2009 BY CARMEN M LOCATELLI =====

Sewer service is currently available.

**EXHIBIT E**

Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 8

===== UPDATED ON NOVEMBER 4, 2009 BY CARMEN M LOCATELLI =====  
Sewer service is currently available.

Dpw Sanitation Miscellaneous Comments

===== REVIEW ON APRIL 1, 2009 BY CARMEN M LOCATELLI =====

Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit application

Department of Public Works and District approval shall be obtained for an engineered sewer improvement plan, showing on-site and off-site sewers needed to provide service to each lot or unit proposed, before sewer connection permits can be issued. The improvement plan shall conform to the County's "Design Criteria" and shall also show any roads and easements. Such easements shall require proof of recordation or all existing and proposed easements shall also be delineated on the Final Map.

The applicant must form a Homeowner's Association with ownership and maintenance responsibilities for all on-site sewers for this project; reference to same shall be included on the Final Map and in the Association's CC&R's. Provide copy of said CC&R's to District prior to the filing of the final map

Show lateral slope (min. 2%).

Show main (8') slope min. 1%.

Private 8" private collector lines shall be located in private easements or common areas.

Include maintenance in CCR'S.

Label cleanout - Refer to SS23 and SS24 for new man hole frame.

Show rim/inv of new man hole.

Show flow direction of 8" sewer in 7th Ave.

Label lots on utility plan.

Show finished floor elevations for each condo on utility plan.

Main servicing lot 7,8,9 shall be 8".

Lateral to Lot 7 shall connect perpendicular to sewer main .

Main at end of Lot 9 shall have a man hol installed.

No lateral connection into cleanout or man hole.

A clean out is required between the building and collector line.

===== UPDATED ON NOVEMBER 4, 2009 BY CARMEN M LOCATELLI =====

Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit applica-

**EXHIBIT F**



Discretionary Comments - Continued

Project Planner: Robin Bolster  
Application No.: 09-0035  
APN: 026-211-19

Date: December 18, 2009  
Time: 13:34:11  
Page: 9

tion

Existing lateral(s) must be properly abandoned (including inspection by District) prior to issuance of demolition permit or relocation or disconnection of structure. An abandonment permit for disconnection work must be obtained from the District. Department of Public Works and District approval shall be obtained for an engineered sewer improvement plan, showing on-site and off-site sewers needed to provide service to each lot or unit proposed, before sewer connection permits can be issued. The improvement plan shall conform to the County's "Design Criteria" and shall also show any roads and easements. Such easements shall require proof of recordation or all existing and proposed easements shall also be delineated on the Final Map. Show all existing and proposed plumbing fixtures on floor plans of building application.

# COUNTY OF SANTA CRUZ

## DEPARTMENT OF PUBLIC WORKS

### INTER-OFFICE CORRESPONDENCE

DATE: November 6, 2009

TO: Robin Bolster-Grant, Planning Department

FROM: Kate Cassera, Department of Public Works



SUBJECT: IMPROVEMENT PLAN SUBMITTAL NUMBER THREE FOR TRACT 1555,  
APPL. NO. 09-0035, HARBOR TOWNHOMES, 1175 7<sup>TH</sup> AVENUE, SANTA  
CRUZ, APN 026-211-19

---

I have the following comments specific to the subject application:

#### PRIOR TO DPW APPROVAL

1. Please provide a certified arborists report that the wood addresses the utility trenching within the drip line of the 72" redwood tree to remain is acceptable.

I'll defer to the drainage and traffic sections for any additional comments related to those areas.

If you have any questions or need any clarification of the information in this memo, please call me at extension 2824.

KNC:knc  
Attachment

W A T E R   D E P A R T M E N T  
212 Locust Street, Suite C, Santa Cruz CA 95060 Phone (831) 420-5200 Fax (831) 420-5201

December 9, 2008

Cliff Bixler  
91 Country Estates Drive  
Santa Cruz, CA 95060

Re:    APN: 026-211-19, 9-UNIT MULTI-RESIDENTIAL DEVELOPMENT AT 1175 7<sup>TH</sup> AVENUE

Dear Mr. Bixler:

This letter is to advise you that the subject parcel is located within the service area of the Santa Cruz Water Department and potable water is currently available for normal domestic use and fire protection. Service will be provided to each and every lot of the development upon payment of the fees and charges in effect at the time of service application and upon completion of the installation, at developer expense, of any water mains, service connections, fire hydrants and other facilities required for the development under the rules and regulations of the Santa Cruz Water Department. The development will also be subject to the City's Landscape Water Conservation requirements.

At the present time:

the required water system improvements are not complete; and  
financial arrangements have not been made to the satisfaction of the City to guarantee payment of all unpaid claims.

This letter will remain in effect for a period of two years from the above date. It should be noted, however, that the City Council may elect to declare a moratorium on new service connections due to drought conditions or other water emergency. Such a declaration would supersede this statement of water availability.

If you have any questions regarding service requirements, please call the Engineering Division at (831) 420-5210. If you have questions regarding landscape water conservation requirements, please contact the Water Conservation Office at (831) 420-5230.

Sincerely,



Bill Kocher  
Director

BK/av  
PAWTE\EngTech\Adrian's\Water Availability\_1175\_7thAve.doc  
Cc: SCWD Engineering

January 6, 2008

Cliff Bixler  
91 Country Estates Drive  
Santa Cruz, CA 95060

SUBJECT: SEWER & WATER AVAILABILTY AND DISTRICT CONDITIONS  
OF SERVICE FOR THE FOLLOWING PROPOSED DEVELOPMENT:

APN: 026-211-19	APPLICATION NO.: N/A (PRESUBMITTAL)
PARCEL ADDRESS:	1175 7 <sup>TH</sup>
	SANTA CRUZ
PROJECT DESCRIPTION:	NEW SUBDIVISION WITH 9 TOWNHOMES

Sewer service is available for the subject development upon completion of the following conditions. This notice is effective for one year from the issuance date to allow the applicant the time to receive tentative map, development or other discretionary permit approval. If after this time frame this project has not received approval from the Planning Department, a new sewer service availability letter must be obtained by the applicant. Once a tentative map is approved this letter shall apply until the tentative map approval expires.

Department of Public Works and District approval shall be obtained for an engineered sewer and water improvement plan, showing on-site and off-site sewer and water lines needed to provide service to each lot or unit proposed, before sewer connection permits can be issued. The improvement plan shall conform to the County's "Design Criteria" and shall also show any roads and easements. Existing and proposed easements shall be shown on any required Final Map. If a Final Map is not required, proof of recordation of existing or proposed easement is required.

Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit application. Existing public sewer main and easement shall be surveyed and plotted on plans.

Existing lateral(s) must be properly abandoned (including inspection by District) prior to issuance of demolition permit or relocation or disconnection of structure. An abandonment permit for disconnection work must be obtained from the District.

All applications for commercial developments, MLD's and tracts must include an engineered sewer improvement plan, approved by the County's Department of Public Works and the District, showing on-site and off-site sewers needed to provide service to

**EXHIBIT E**

County's "Design Criteria" and shall also show any easements or roads. Existing and proposed easements shall be shown on any required Final Map. If a Final Map is not required, proof of recordation of existing or proposed easement is required.

Water use data (actual and /or projected), and other information as may be required for this project, must be submitted to the District for review and use in fee determination and waste pretreatment requirements before sewer connection permits can be approved.

The applicant must form a Homeowner's Association with ownership and maintenance responsibilities for all on-site sewers for this project; reference to same shall be included on the Final Map and in the Association's CC & R's. Provide copy of said CC & R's to District prior to the filing of the final map.

Show all existing and proposed plumbing fixtures on floor plans of building application.

No downstream capacity problem or other issue is known at this time. However, downstream sewer requirements will again be studied at time of Planning Permit review, at which time the District reserves the right to add or modify downstream sewer requirements.

Other: A backflow preventative device may be required

Yours truly,

THOMAS L. BOLICH  
District Engineer

By:

Rachel Lather  
Sanitation Engineer

EXHIBIT 7

# Late Correspondence

## Robin Bolster

---

**From:** pleasure\_point\_1@yahoo.com  
**Sent:** Wednesday, March 10, 2010 5:03 PM  
**To:** Robin Bolster  
**Cc:** patachek@juno.com; Michael A. Guth  
**Subject:** 7th Ave Town Houses

I am opposed to this development backing up to Arana Gulch.  
This area would be better zoned for open space.  
Please consider less dense development with view corridors to the greenbelt behind.  
The Harbor Vista Ln/Joseph Way, off upper 7th with a view and access to the greenbelt is a good model, if this project goes forward.  
On-site retention of rainwater, through rainwater harvesting, rain gardens, green roofs, permeable parking, will help meet the standard of post development runoff shall not exceed predevelopment runoff.  
Thank you for accepting this information  
Charles Paulden