COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH 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: **Robert Goldspink; Owner: Berkshire Investments, LLC**

APPLICATION NO.: **07-0267**

APN: **110-141-06, -07, and –08**

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: **May 5, 2009**

Samantha Haschert
Staff Planner

Phone: **831 454-3214**

Date: **April 9, 2009**

Environmental Review
Initial Study

Application Number: 07-0267

Date: April 6, 2009
Staff Planner: Samantha Haschert

I. OVERVIEW AND ENVIRONMENTAL DETERMINATION

APPLICANT: Robert Goldspink **APN**: 110-141-06, 07 & 08

OWNER: Berkshire Investments, LLC **SUPERVISORAL DISTRICT**: 4th (Campos)

LOCATION: Property located on the north side of Silliman Road (151 and 155 Silliman Road) about 300 yards east of Highway 129 in Watsonville.

SUMMARY PROJECT DESCRIPTION: Proposal to expand an existing agricultural research facility to include construction of 7504 square feet of offices, 9044 square feet of greenhouse, 3370 square feet of laboratory, a 2304 square foot office/conference room, and a 3024 square foot storage building. Requires an Amendment to Master Plan 88-1104.

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.

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

II. BACKGROUND INFORMATION

EXISTING SITE CONDITIONS

Parcel Size: 28.26 acres (combined 110-141-07 & 08)
Existing Land Use: Agricultural Research Facility & Commercial Agriculture
Vegetation: Planted commercial agriculture on north portion of parcel; small wooded area including cypress, acacia and oak trees on south portion of parcel.
Slope in area affected by project: _X_ 0 - 30% ___ 31 – 100% (approx. 30% slope at south end of parcel)
Nearby Watercourse: Pajaro River (about 1 mile south of the subject parcel)

ENVIRONMENTAL RESOURCES AND CONSTRAINTS

Groundwater Supply: None mapped

Water Supply Watershed: None mapped
Groundwater Recharge: None mapped
Timber or Mineral: None mapped
Agricultural Resource: Mapped resource; proposed development compatible with zoning and general plan objectives

Biologically Sensitive Habitat: Small area at north portion of site mapped biotic resource; however not within proposed area of disturbance.
Fire Hazard: Not mapped

Floodplain: Not mapped
Erosion: Not mapped
Landslide: Not mapped

Liquefaction: Mapped area of very high and moderate liquefaction; geotechnical reports required prior to building permit issuance.
Fault Zone: Not mapped
Scenic Corridor: Not mapped
Historic: None mapped
Archaeology: Mapped resource; area proposed for development already disturbed; reconnaissance not required.
Noise Constraint: None

Electric Power Lines: Electric power lines onsite to serve various buildings.
Solar Access: N/A
Solar Orientation: N/A
Hazardous Materials: None

SERVICES

Fire Protection: Pajaro Valley Fire District
School District: Pajaro Valley USD
Sewage Disposal: Septic
Drainage District: Zone 7
Project Access: Via Silliman Road
Water Supply: Private well

PLANNING POLICIES

Zone District: CA (Commercial Agriculture)
General Plan: AG (Agriculture)
Special Designation: None

Urban Services Line:	___ Inside	_X_ Outside
Coastal Zone:	___ Inside	_X_ Outside

DETAILED PROJECT DESCRIPTION:

The proposed project is to expand an existing agricultural research facility by constructing 7504 square feet of offices, 9044 square feet of greenhouses, 3370 square feet of laboratory, a 2304 square foot office/conference rooms, and a 3024 square foot storage building. The proposed project would add 25,246 square feet of commercial agricultural structures to the 41,747 square feet of existing structures on the subject property to total 66,993 square feet of commercial agriculture buildings.

Approval of the proposed project would create a total of 5 offices, 4 storage buildings, 7 greenhouses, 1 screenhouse, 4 laboratories, 1 detached restroom, and 1 fertilizer station on the subject property. In addition, proposed site improvements include paving the existing driveway and parking area, moving the existing private driveway to the east to resolve the encroachment into the adjacent parcel, construct a new trash enclosure/propane tank area north of the greenhouse, relocate the fueling station to the driveway, removing the existing swimming pool, installing new landscaping, and providing accessible routes and features throughout the agricultural research campus.

County Code 16.50.095 requires that structures designed for a level of human use similar to that of a habitable structure, maintain a 200 foot setback from surrounding Commercial Agriculture (CA) zoned lands. The proposed project includes office buildings and laboratories, which would accommodate a level of use similar to that of a habitable structure; therefore, the project was required to obtain approval from the Agricultural Policy Advisory Commission (APAC) to reduce the required 200 foot agricultural buffer setback from adjacent parcels. On August 21, 2008, APAC approved reductions to a minimum of 45 feet from adjacent CA land to the west and south (APN 110-141-06) (Attachment 12)

The proposed expanded facility would bring in an estimated 59 additional employees for a total about 89 staff on site, the majority of which will be field workers. In addition, the proposed conference room would be used both for small weekly staff meetings of about 25 -30 people and for larger monthly meetings of about 80-100 people (regional staff, guests, growers, buyers, etc.).

The parcel is a mapped archaeological resource area, however, the area proposed for development is already totally disturbed (cleared and/or developed) and is unlikely to contain prehistoric resources.

This proposal requires an Amendment to Master Plan 88-1104.

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

identified primarily expansive clayey soils at the site rather than sandy soils; therefore, liquefaction is not an area of concern for the proposed project.

D. Landslides? ____ ____ X ____

The subject parcels are not mapped for landslide areas and the topography of the parcel is primarily flat. There is a slight slope, which is over 30%, located at the southern boundary of the proposed parcel; however no development is proposed on the slope or at the toe or heel of the slope; therefore, as per the County Geologist, a geologic report is not required for this project and landslide hazards are not an area of concern for the project.

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? ____ ____ X ____

See A-1 above regarding landslide potential, liquefaction analysis, and structural design requirements.

3. Develop land with a slope exceeding 30%? ____ ____ X ____

There are slopes that exceed 30% on the property; however, no buildings are proposed for construction on slopes in excess of 30%.

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

Some potential for erosion exists as a result of the proposed development due to construction impacts; however, prior to building permit issuance, the property owner and/or applicant will be required to submit detailed erosion control plans for review and approval by Environmental Planning staff as per County Code Section 16.22.060. In addition, the existing dirt interior circulation and parking areas would be paved as a result of the development, which contributes to the reduction of onsite soil erosion.

5. Be located on expansive soil, as defined in section 18.02.32 of the California Building Code, creating substantial risks to property? ____ ____ X ____

The geotechnical report (Attachment 6) submitted for this project, has identified potentially expansive clayey soils at the proposed development areas with a "...moderately high potential for shrink/swell with moisture variation." To address the

	Significant Or Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Or No Impact	Not Applicable
2. Place development within the floodway resulting in impedance or redirection of flood flows?				X

Not applicable. See response B-1 above.

3. Be inundated by a seiche or tsunami?				X
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 property is served by a well but it is not located within a mapped groundwater recharge area. There would be a small increase in water demand as a result of this project due to the proposed increase of about 59 staff which could contribute to the depletion of groundwater supplies. The existing parcel already creates a draw on water supplies in that about 24 acres of the 28 acre parcel is currently planted with commercial agriculture. Therefore, as per the County Code, the applicant must submit utility plans that clearly show the location of the well and water lines on the subject properties for Planning and Environmental Health Services staff approval prior to building permit issuance. In addition, in order to mitigate the impacts of increased water usage on groundwater supplies due to increased staffing levels, the applicant shall include Best Management Practices (BMP's) for agricultural water conservation on the utility plans for review and approval by County Environmental Planning Staff prior to building permit issuance. Implementation of this mitigation will ensure that the slight increase in water usage on the subject parcel will not contribute substantially to a net deficit in 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	

The project has the potential to contribute urban pollutants to the Pajaro River during construction of the proposed new facilities and due to the introduction of additional hardscape for parking areas, interior circulation and new building area; however, the project includes plans to manage increased storm water runoff through a new underground storm water system that includes filtering mechanisms such as rock filled trenches to filter runoff prior to it leaving the site. The use of pervious paving would be

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Calculations prepared by Robert DeWitt, P.E. dated 9/14/07 (Attachment 7), a Watershed Analysis prepared by Robert DeWitt, P.E. dated 2/1/08 (Attachment 8), Percolation Testing prepared by Haro, Kasunich and Associates, Inc, dated 8/27/08 (Attachment 9), and a Plan Review Letter regarding the Preliminary Drainage Plan prepared by Haro, Kasunich and Associates, dated 9/4/08 (Attachment 10). The runoff rate from the property would be controlled by the installation of a new detention system that would be located at the toe of the slope on the south western property line, rock filled trenches, and the use of some pervious materials. DPW staff has determined that proposed storm water system is feasible to handle the increase in drainage associated with the project. As per County Code, the applicant and/or property owner will be required to submit final engineered drainage plans to be reviewed by Department of Public Works Stormwater Management Staff for accuracy of drainage calculations, detention basin and infiltration trench design, and orifice sizing prior to building permit issuance. 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	____

The project has the potential to contribute to flood levels on the Pajaro River as a result of newly collected runoff. The Pajaro River is located over a mile to the south and the existing drainage path flows between agricultural parcels through channels, pipes and ponds before it reaches the river. The applicant is proposing to install a detention system at the southern property boundary with an energy dissipater to hold and slow runoff to predevelopment rates. Outflow from the detention system would flow to an existing pond located on parcel 110-151-01 (Lukrich property) about 800 feet to the southwest, which discharges to a Kelly ditch and runs over a mile south to the Pajaro River. The Department of Public Works Stormwater Management staff has determined that the capacity of the existing ditches, channels, and pond impacted by the development, is adequate to handle the additional runoff from the proposed project. In addition, as per County Code, the applicant and/or property owner will be required to submit final drainage plans for review and approval by Department of Public Works Stormwater Management staff prior to building permit issuance in order for staff to perform a complete review of the submitted drainage calculations and for detention basin, infiltration trench and orifice sizing and design. Recorded maintenance agreements will be required for both downstream property owners and Driscoll's for the maintenance of the detention basin. Implementation of the above described requirements will ensure that newly collected runoff as a result of the proposed project does not contribute to flood levels or erosion in the Pajaro River or in downstream drainage paths.

10.	Otherwise substantially degrade water supply or quality?	____	X	____	____

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

identify the subject parcels as migratory corridors.

4.	Produce nighttime lighting that will illuminate animal habitats?	____	X	____	____

The proposed buildings would incorporate new lighting fixtures and some will be within the vicinity of a wooded area and agricultural fields that provide habitat for animals. In order to mitigate the impacts of additional nighttime lighting on existing animal habitats, the applicant shall submit a lighting plan with the final project plan set which shall show all proposed site, building, security, and landscape lighting directed downwards and away from adjacent animal habitats, agricultural areas, and undisturbed areas. If lighting is to be used in the proposed parking and circulation areas, low-rise light fixtures, or equivalent, must be utilized. The lighting plan must be reviewed and approved by County Planning Staff prior to building permit issuance. Implementation of these mitigations will effectively reduce the impacts of nighttime lighting on animal habitats to less than significant.

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 proposed project does not conflict with any local policies or ordinances protecting biological resources because no significant trees are proposed for removal and no special species have been found to exist at the site.

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

There are no Habitat Conservation Plans, Biotic Conservation Easements, or other approval local, regional, or state habitat conservation plans that exist on the subject parcel.

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

staff also determined that capacity of the existing downstream path to the Pajaro River can adequately support increased runoff from the proposed site in a larger storm event. In addition, the use of pervious paving, water treatment, and other Best Management Practices (BMP's) will be reviewed for feasibility prior to building permit issuance. Prior to building permit issuance, DPW Stormwater Management staff will review and approval the sizing and design of the proposed system as per Department of Public Works Stormwater Management Design Criteria. Impacts to surrounding and on-site agricultural uses would be less than significant as a result of this project.

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	____	____

The use of fuel, water and energy would increase minimally as a result of the increase in staffing levels and new construction at the site. The project would increase the number of on-site staff by 50 employees, add one new greenhouse, and replace an existing greenhouse with a larger one, which will result in additional vehicle trips to and from the property and increase water usage for the additional enclosed agricultural areas. The project would also create three new office buildings and a new laboratory, thereby increasing the energy consumption on site for operation within the buildings and temporarily for construction and demolition of structures. The existing outdoor agricultural operations would not be altered or expanded as a result of the project. The increased consumption of fuel, water, and energy described above will be minimal and is comparable to similar commercial developments of this size that have been permitted elsewhere in the County. To ensure that the impacts of increased water usage are mitigated to less than significant, the applicant shall submit a utility plan that includes water conservation methods for the proposed expanded agricultural uses for review and approval by County Planning Staff prior to building permit issuance.

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

Not applicable because no natural resources would 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

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

Not applicable because there are no unique geological or physical features on or adjacent to the site.

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

Not applicable because none of the existing structures on the property are designated as a historic resource 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	____

The parcels are mapped for archaeological resources; however, the proposed building site is already cleared, graded, and disturbed and no undisturbed areas would be altered or built upon as a result of this project; therefore, a preliminary archaeological reconnaissance is not required as a part of this project. Pursuant to Section 16.40.040 of the Santa Cruz County Code, if archeological resources are uncovered during construction or grading, 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	____

See response F-2. 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

Not applicable because none of the subject parcels are mapped for geological or

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Not applicable because no new electrical transmission lines are proposed as a part of the project and no high voltage transmission lines exist on the subject parcel.

5. Create a potential fire hazard?	____	____	X	____

The project would not create a fire hazard in that the design incorporates all applicable fire safety code requirements and would 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

Not applicable because there would not be bio-engineered organisms or chemicals created 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 has the potential to increase traffic on Silliman Road and Highway 129 due to a slight increase in staffing levels, deliveries, and minimal additional employee visitation for conferences and tours. There are currently 30 employees working on site and the proposed project would bring in 59 new positions, which would increase the staffing level to 89 employees. In addition, although the facility would be open to the public during working hours, there are no public events or services that would draw people to the site. According to the County Department of Public Works Road Engineering, the proposed increase in staff is less than significant from a trip perspective and would not create congestion at the Silliman Road - Highway 129 intersection, which is not currently a congested intersection.

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

The project would upgrade the existing parking facilities to meet County Code requirements for the uses proposed including: offices, a conference room, laboratories, greenhouses, storage buildings and berry fields. The proposal requires a total of 117

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

the expanded facility would not occur outside of regular working hours and construction noise would be temporary.

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

The General Plan establishes the normally acceptable maximum exterior noise exposure for commercial facilities at 60 decibels and at 70 decibels for agricultural facilities. The closest residence is located about 300 feet to the south of the proposed development area. The noises associated with the expanded facility will be a result of onsite operations such as outdoor conversations, vehicular noise, and minimal heavy equipment operation (1 forklift and 1 tractor). These types of commercial and industrial activities usually produce noise levels under 80 decibels at a close range (about 3 feet); therefore, the noise produced by the proposed project will not expose surrounding residences to noise levels in excess of the General Plan standards. Employees on site may be subjected to noise levels in excess of General Plan standards if they are within close range or if they are operating heavy equipment; however, the property owner is required by the U.S. Department of Labor to comply with regulations for occupational noise exposure as per the Occupational Safety and Health Association to prevent occupational illnesses, injuries and deaths. In addition, neighboring farm companies currently drive tractors onsite to utilize the existing fueling station; however, the fueling tanks are proposed to be relocated to the north perimeter driveway as a part of this project so that in the future large vehicles will not enter the interior of the property and create additional noise; therefore, the minimal increase in noise levels as a result of the proposed project would not expose people to levels in excess of standards required by the General Plan for this facility.

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

Refer to I-1 and I-2 above.

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	____	____

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

The project would be conditioned to meet all standards and requirements of the Pajaro Valley Fire Protection District including fire hydrants, sprinkler systems, alarm systems, and clearance. In addition, the applicant shall construct all site improvements and buildings in accordance with the most current California Building Code to ensure safety and accessibility.

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	

The project requires the construction of a new storm water drainage system to adequately reduce the impacts of the proposed impervious areas and buildings to less than significant. Drainage analysis of the project (Haro, Kasunich & Associates, August 2008) (Attachment 7) concluded that onsite retention is not suitable for the site given the clayey/silty nature of the subsurface soils (low percolation) and recommends specific locations for buried detention tanks which would drain downslope through solid lines and discharge into existing natural drainage swales. County Stormwater Management Staff and Environmental Planning Staff have reviewed the conceptual drainage plans and determined that no significant environmental impacts would occur as a result of the proposed stormwater management plan. As per County Code, the property owner and/or applicant will be required to comply with all recommendations of the Geotechnical Reports (May and August 2008) to ensure that the sizing and design of the proposed drainage system components will adequately serve the proposed facility.

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	

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

expansion through regular garbage service. In order to mitigate the impacts of temporary construction debris to less than significant, the applicant and/or property owner must recycle and reuse materials, as appropriate, and to the maximum extent possible and note the plans for such on the final building permit plan set. Implementation of this mitigation would reduce the one-time impact of construction debris on the landfill to less than significant.

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

The project is expected to result in a minimal increase in solid waste accumulation due to the increase in staffing levels at the proposed expanded facility; however, the increase will not result in a breach of federal, state, or local statues and regulations in that the proposed facility will not create waste as a bi-product of operations. The only solid waste generated by the facility will be that resulting from normal daily activities which is common in similarly sized commercial developments and will be less than significant.

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 does 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 impervious surfaces, reduced noise and air quality impacts, and minimization of lighting on the surrounding animal habitat. In addition, the project has already been approved by the Agricultural Policy Advisory Commission (APAC) for a reduction to the required 200 foot agricultural buffer to surrounding Commercial Agriculture (CA) zoned parcels to the west and south (General Plan Policies 5.13.23 - 5.13.25).

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 as the site is currently flat; however, engineered grading plans will be required for review and approval by County Environmentally Planning Staff prior to building permit issuance to ensure consistency

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

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

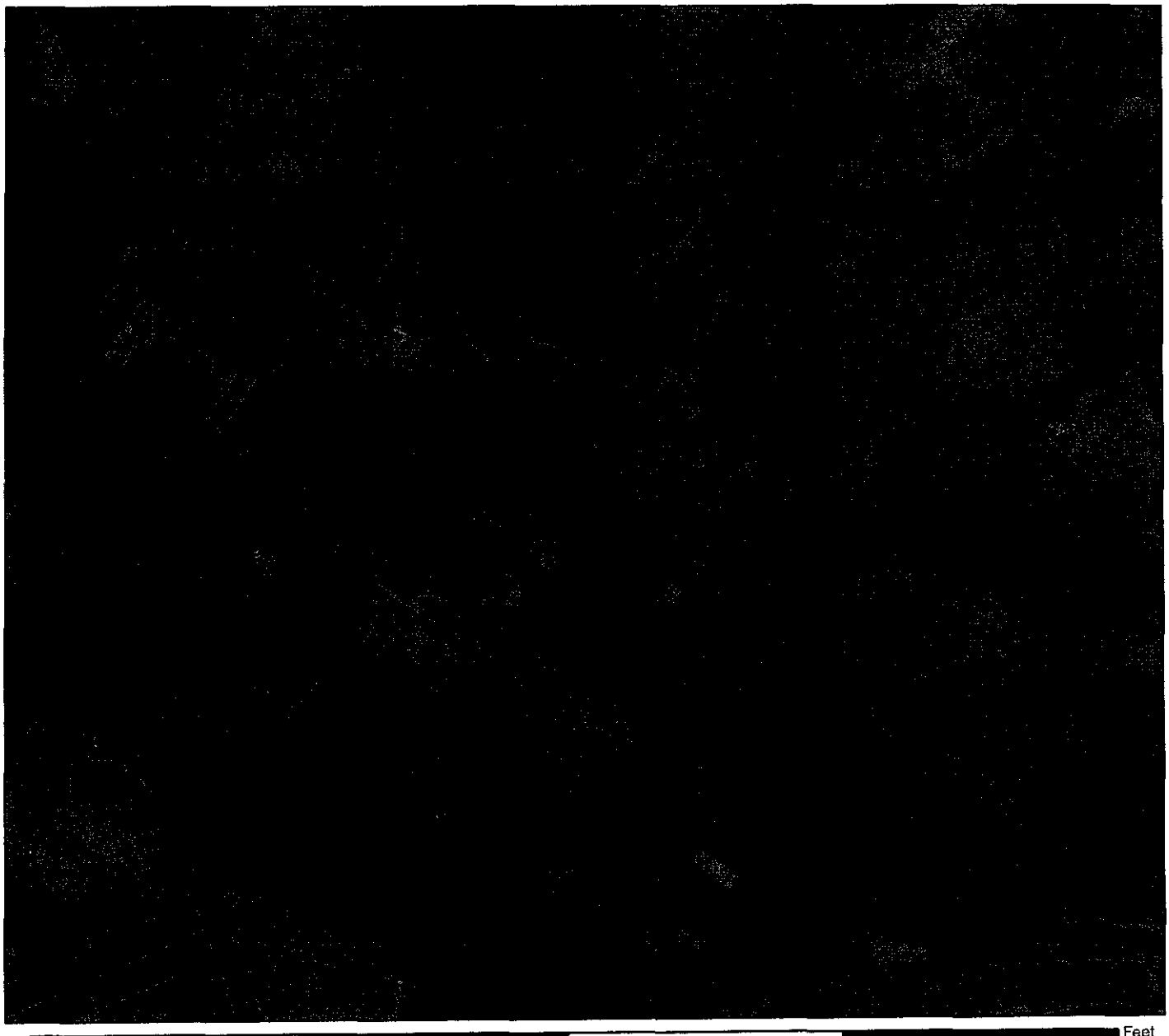
3. Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of reasonably foreseeable future projects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

Location Map



0 1,700 3,400 6,800 10,200 13,600 Feet

LEGEND

APN: 110-141-07

Assessors Parcels

Streets

N

W E

S

Map Created by
County of Santa Cruz
Planning Department
June 2008

Application 07-0267
Attachment 1

General Plan Designation Map

0 315 630 1,260 1,890 2,520 Feet

LEGEND

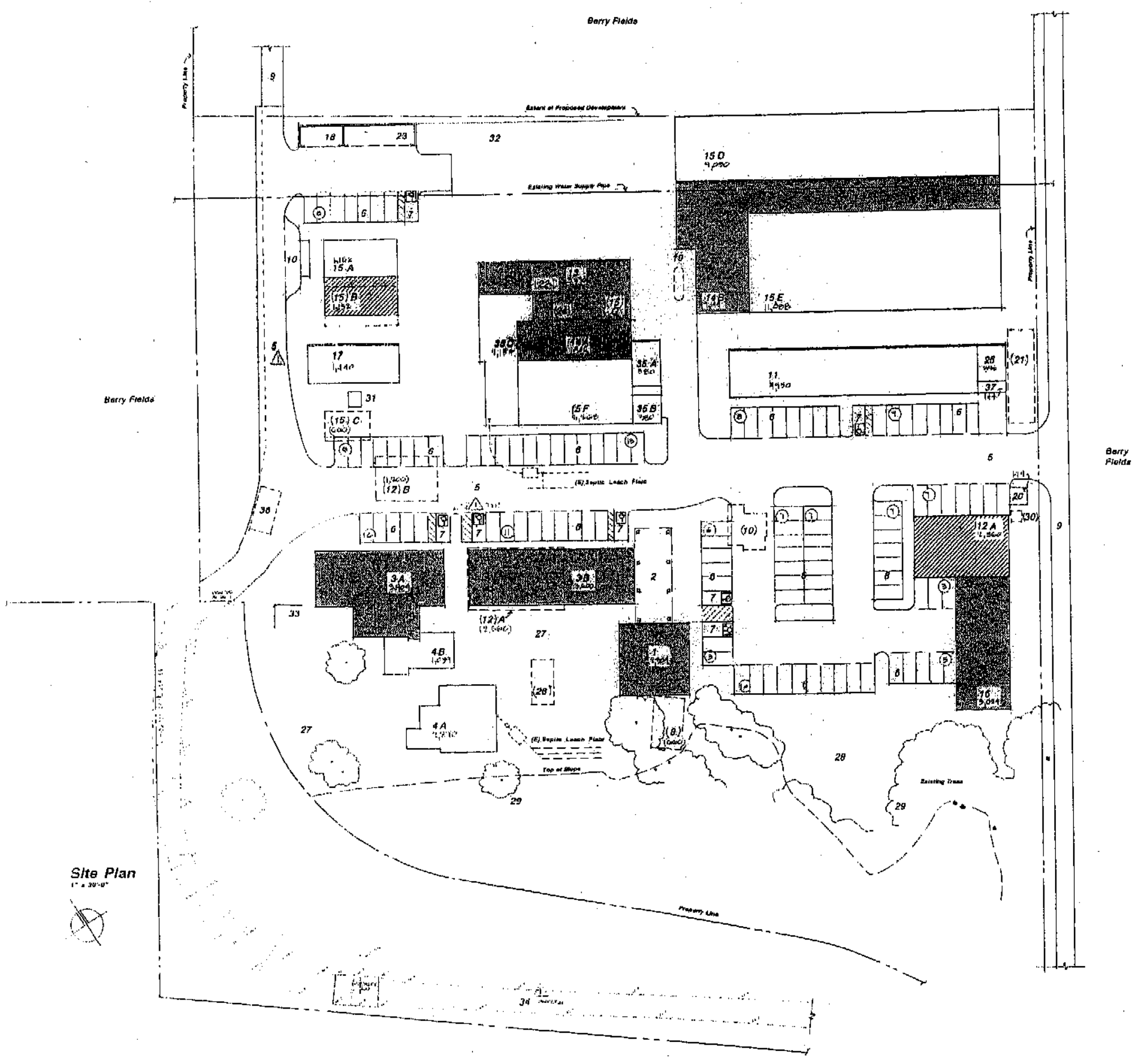
- APN: 110-141-07
- Assessors Parcels
- Streets
- Agriculture

N
W E
S

Map Created by
County of Santa Cruz
Planning Department
December 2008

Application 07-0267
Attachment 3

REVISIONS



Site Plan

1" = 30'-0"

Key

1 New Office Conference Room
2 New Covered Entry
3 New Office Building
4 Existing Office Building
5 New Paved Driveway
6 New Parking Stalls, 9' x 18', ( ) number of stalls
7 New Accessible Parking
8 Existing Greenhouse (relocated)
9 Existing Unpaved Road
10 Existing Fuel Station to be relocated
11 Existing Storage Building
12 Existing Storage Building
13 New Laboratory Building
14 New Greenhouses
15 Existing Greenhouse
16 New Equipment Storage [illegible]
17 Existing Screenhouse
18 New Trash Enclosure
19 Existing LPG Tanks to be removed
20 Existing Restroom Building
21 Existing Covered Area to be removed
22 Existing Water Tank
23 New Propane Tank Enclosure
24 Existing Pump & Filter
25 Existing Covered Area enclosed as Chemical S[illegible]
26 Existing Swimming Pool to be removed
27 Existing Lawn
28 Septic Leach Area
29 Existing Trees, typ.
30 Existing Chemical Storage to be removed
31 Existing Well Head [illegible]
32 Gravel road with Seedling Racks
33 Existing Fence
34 Existing Private Access Road
35 Existing Laboratory Building
36 Water Pit Station
37 Liquid Fertilizer Station

( ) Indicates existing building relocated or [illegible]

New Building

Existing building to be relocated

Existing building

CASSIN RANCH

Proposed Development Plan
151 Silliman Road
Watsonville CA 95076

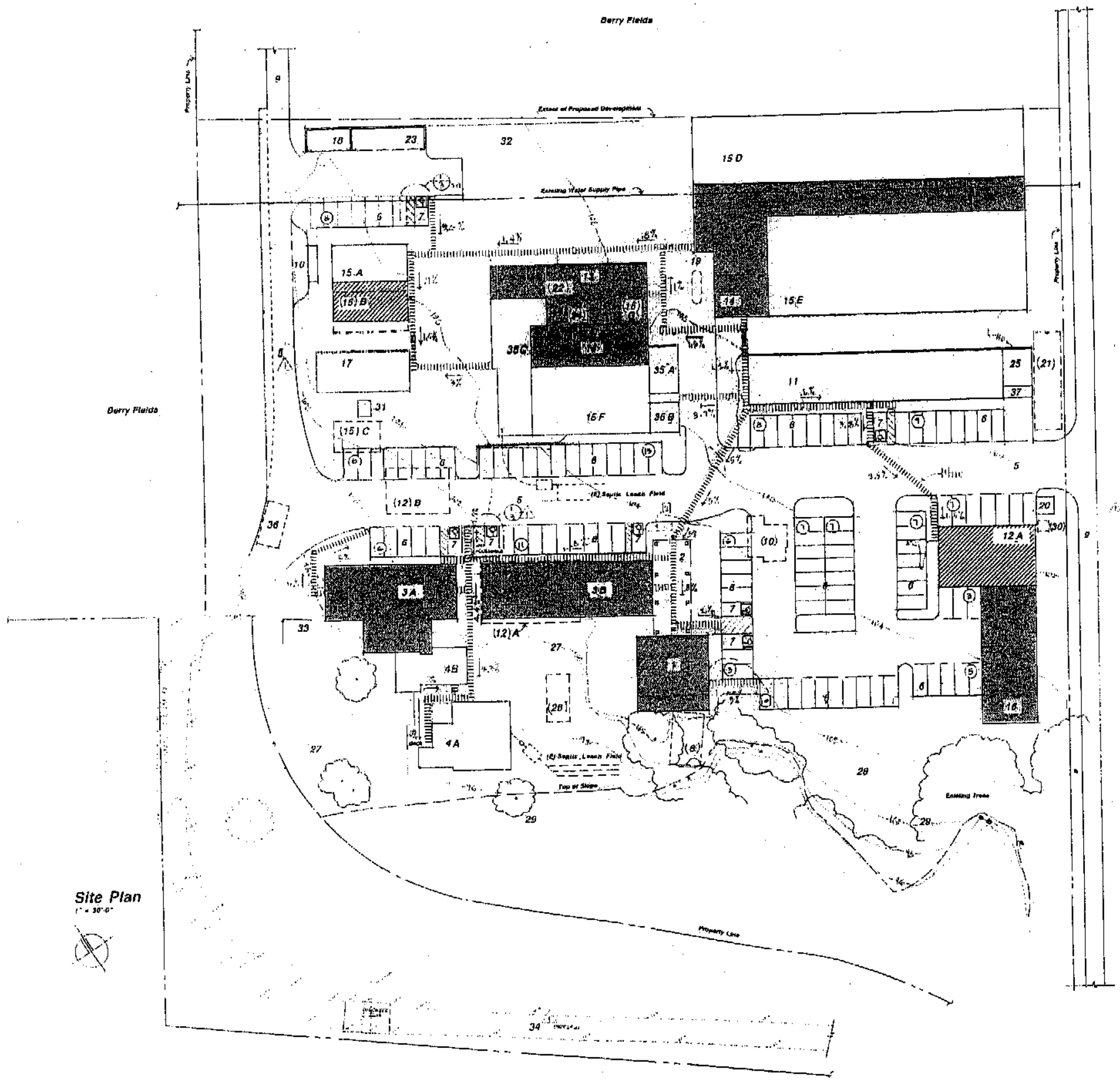
ROBERT J. GOLDSPINK ARCHITECTS
8842 Soquel Drive Aptos CA 95003
tel (831) 684 4930 fax (831) 688 4492

1

Site Plan

APN 110-141-07 & 08
Development Permit App. # 97-0267

REVISIONS:
⚠ ADDED ACCESSIBLE PARKING

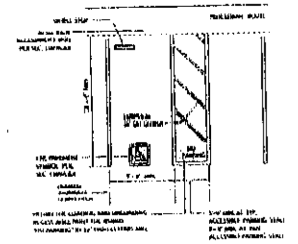


Site Plan
1" = 30'-0"

Accessibility Path:

(1) Accessible Path: Width 4 feet. Gradient percent in direction of travel is shown, i.e. Accessibility Path (not slopping downward). Cross slope: 2% maximum. Cross slope shall slope down away from buildings. Accessibility paths shall be provided to all buildings including new and existing accessible restroom facilities.

(P) Accessible Passenger Loading Zone 20' L x 5' W.



ACCESSIBLE PARKING DETAIL (1)

⚠ Accessibility Notes

1. General

All new construction and existing accessible buildings shall comply with the requirements of 2007 California Building Code Chapter 11B

2. Accessible Parking

Total parking provided — 113 spaces
Required accessible parking — min. 5 spaces
Accessible parking provided — 7 spaces — includes one van space

Parking spaces shall be dispersed and located nearest to accessible entrances. Entry walkways to buildings shall be level or low slope (not exceeding 2%). Accessible parking spaces shall comply with 2007 CBC Section 1129B and Figure 11A-2B, see Detail 1/3 this drawing and shall be posted with the required signage.

3. Passenger Loading Zone

The passenger loading zone shall be min. 20' x 5' long. It shall be located centrally adjacent Office Building 3B and Office Conference Room Building 4, and shall comply with 2007 CBC Section 1131B.2. The loading zone surface shall be flush with the adjacent walkway and posted with "Passenger Loading Zone Only" signage.

4. Accessible Walking Surface

Accessible walkways shall be min. 48" wide and constructed of compacted decomposed granite blended with Portland cement to provide a solid, stable, slip-resistant surface to comply with 2007 CBC Section 1133B.7

5. Building Access

Accessible walkways shall link all new and existing accessible buildings to each other and to accessible parking. Level landings min. 5ft x 5ft shall be provided inside and outside each accessible building entrance. Where required, ramps shall be constructed to comply with 2007 CBC Section 1133B.5

Key

1 New Office Conference Room
2 New Covered Entry
3 New Office Building
4 Existing Office Building
5 New Paved Driveway
6 New Parking Stalls, 9' x 20', ( ) indicates # of stalls
7 New Accessible Parking
8 Existing Greenhouse Material
9 Existing Unpaved Road
10 Existing Fuel Station to be relocated
11 Existing Storage Building
12 Existing Storage Building
13 New Laboratory Building
14 New Greenhouse
15 Existing Greenhouse
16 New Equipment Storage/Maintenance
17 Existing Greenhouse
18 New Trash Enclosure
19 Existing LPG Tanks to be relocated
20 Existing Restroom Building
21 Existing Covered Area to be removed
22 Existing Water Tank
23 New Propane Tank Enclosure
24 Existing Pump & Filter
25 Existing Covered Area to remain as Chemical
26 Existing Retention Pond to be removed
27 Existing Lawn
28 Seed Leach Area
29 Existing Trees, typ.
30 Existing Chemical Storage to be removed
31 Existing Well Pump Shed
32 Gravel area with Boulder Racks
33 Existing Fence
34 Existing Paved Access Road
35 Existing Laboratory Building
36 Water Fill Station
37 Liquid Fertilizer Storage

( ) indicates existing building removed or relocated

New Building
Existing building to be removed
Existing Building
Accessible Path

CASSIN RANCH

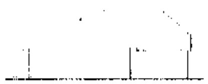
Proposed Development Plan
151 Stillman Road
Watsonville CA 95076

ROBERT J. GOLDSPINK ARCHITECTS
8042 Soquel Drive Aptos CA 95003
tel (831) 688 8950 fax (831) 688 4467

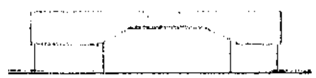
3

Accessibility Plan

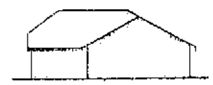
APN 110-141-07 & 08
Development Permit App. # 07-0267



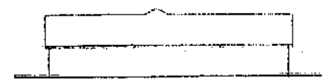
Office Building [3A]
West Elevation



South Elevation



East Elevation



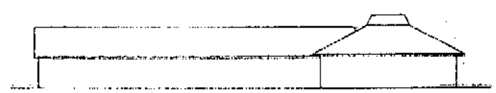
North Elevation

Preliminary Exterior Materials and Colors

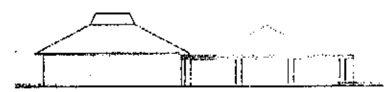
Generally, proposed exterior materials and colors will match earth tone colors of the existing office buildings

Element	Material	Color
Roof	Composition shingles	brown
Siding	Painted vertical board and batt	tan
Trim	Painted 2 x 8 door and window trim	[illegible]
	Fascias	green
Doors & Windows	Metal clad wood doors and windows	Green
Gutters & Downspouts	Painted galvanized steel	green
Greenhouses	[illegible]	

Conference, Office & Covered Entry [1, 2 & 3B]
West Elevation



South Elevation



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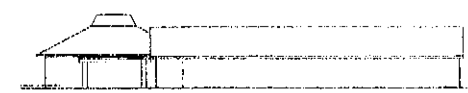
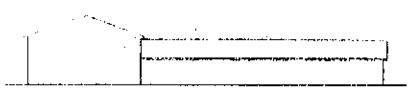
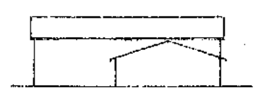


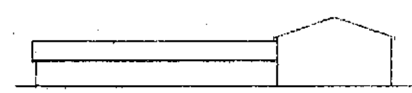
North Elevation



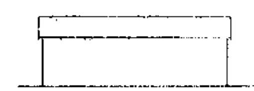
Storage & Maintenance Building [12A, 16]
West Elevation



South Elevation



East Elevation



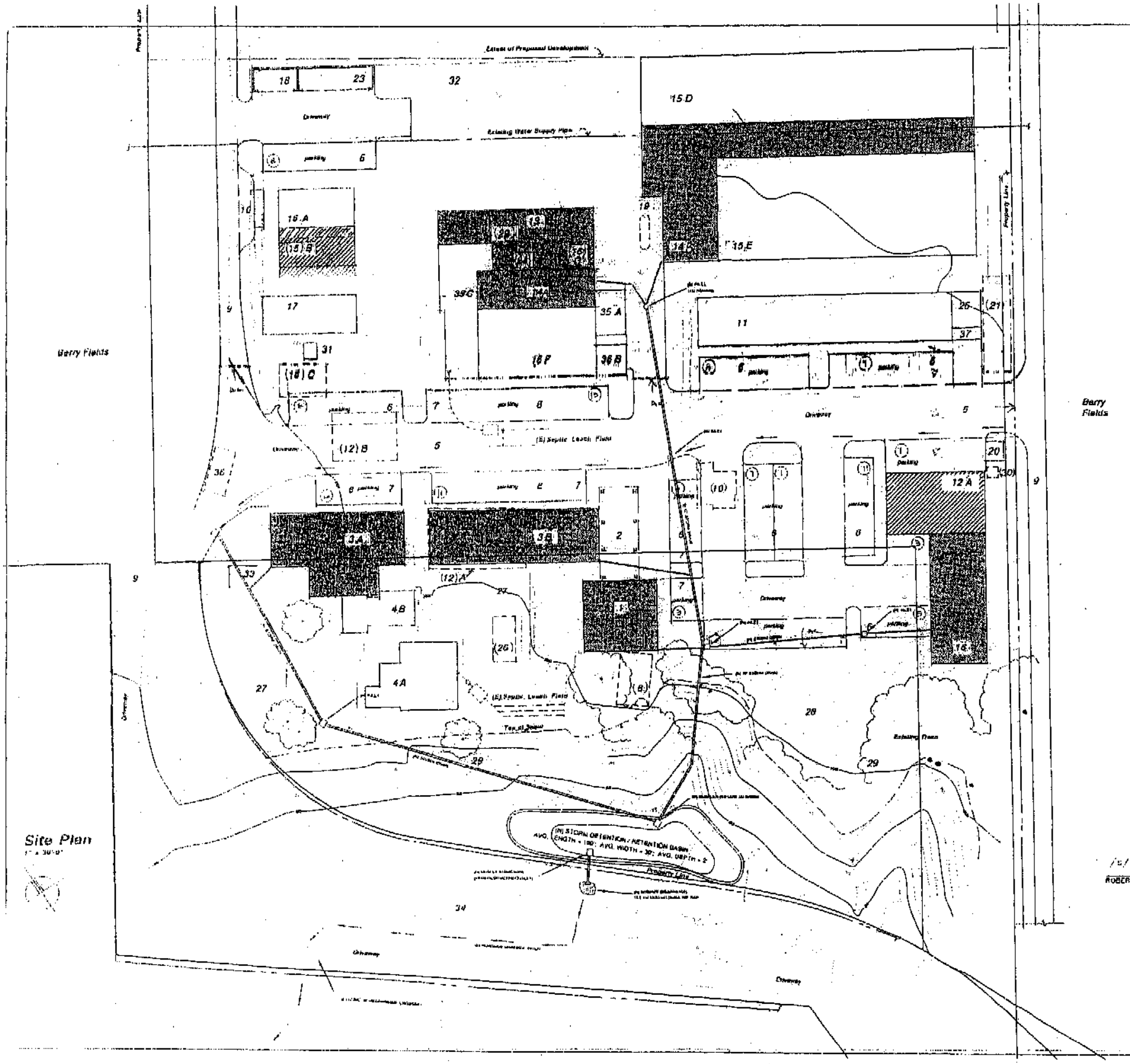
North Elevation

CASSIN RANCH
Proposed Development Plan
151 Silliman Road
Watsonville CA 95076

ROBERT J. GOLDSPINK ARCHITECTS
9042 Soquel Drive Aptos CA 95003
tel (831) 688 8950 fax (831) 688 4402
RobertGoldspink@got.net

5

Proposed Buildings Elevations
APN 110-141-07 & 08
Development Permit App. # 07-0267



DRAINAGE NOTES:

1. REFER TO "DEVELOPMENT PLAN" BY ROBERT GOLDSPINK ARCHITECT FOR SITE DETAILS.

2. THIS IS A SCHEMATIC DRAINAGE PLAN TO PRESENT THE CONCEPTUAL DRAINAGE DESIGN FOR THE PROPOSED SITE IMPROVEMENTS. A MORE DETAILED PLAN CAN BE PROVIDED WITH SPECIFIC PROJECT PLANS.

3. ROOF DRAINAGE AND RUNOFF FROM NEW IMPERVIOUS SURFACES TO BE CONNECTE TO UNDERGROUND STORM DRAINAGE SYSTEM.

4. STORM WATER DETENTION / RETENTION BASIN TO BE SIZED TO CONTAIN EXCESS RUNOFF FROM A DESIGN STORM. OUTLET TO EXISTING DOWNSTREAM DRAINAGE CHANNEL TO BE RESTRICTED TO PRE-DEVELOPMENT RATE.

5. REFER TO "DRAINAGE STUDY for DRISCOLL STRAWBERRY ASSOCIATES, INC." PREPARED BY ROBERT L. DEWITT & ASSOC. INC. DATED 14-SEP-07

/s/ Robert L. DeWitt
ROBERT L. DEWITT

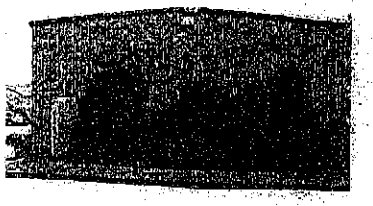
9-25-07
DATE

PRELIMINARY DRAINAGE PLAN

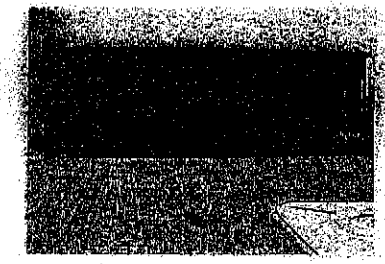
PREPARED AT THE REQUEST OF
DRISCOLL STRAWBERRY ASSOCIATES, INC.
LOCATED AT
APN 110-141-07 & -08
SANTA CRUZ COUNTY, CALIFORNIA

Robert L. DeWitt & Associates, Inc.
Civil Engineers & Land Surveyors

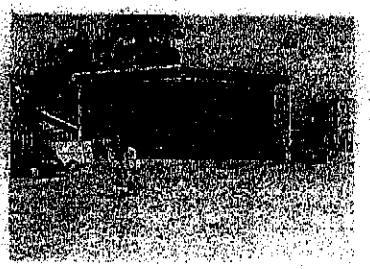
SHEET: P 1



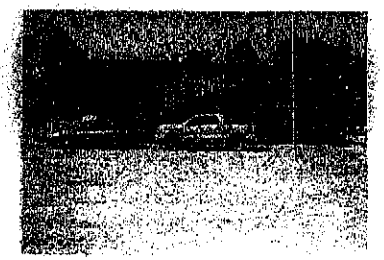
Storage Building 12A
West Elevation



South Elevation



East Elevation

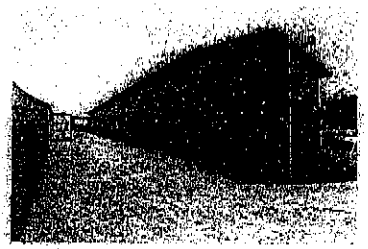


North Elevation

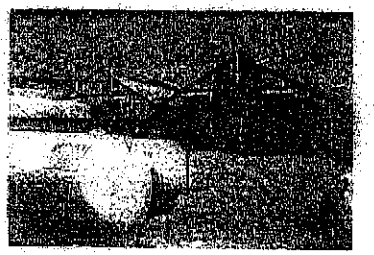
Storage Building 11
West Elevation

South Elevation

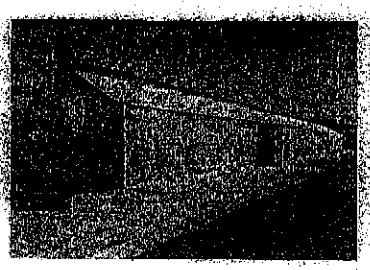
East Elevation



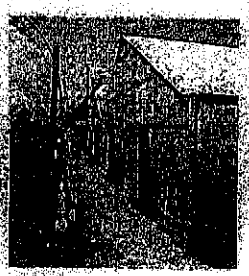
North Elevation



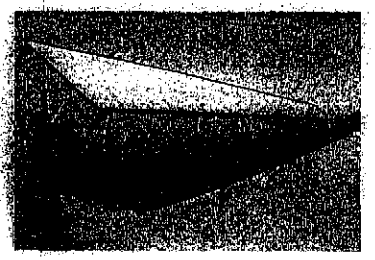
Greenhouse 15E
West Elevation



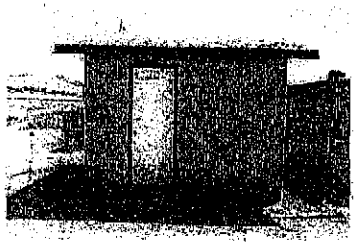
South Elevation



East Elevation

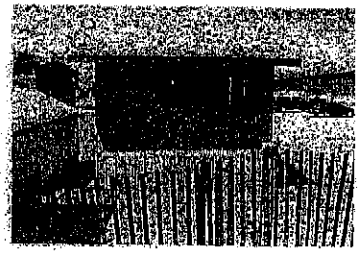


North Elevation



Restroom 20
West Elevation

North South Elevation



East Elevation

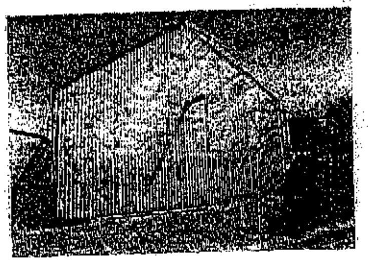
41/93

CASSIN RANCH
Proposed Development Plan
151 Stillman Road
Watsonville CA 95076

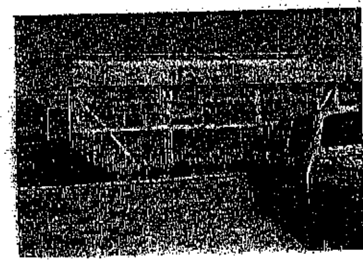
ROBERT J. GOLDSPINK ARCHITECTS
9043 Soquel Drive Aptos CA 95003
tel (831) 688 2958 fax (831) 688 4482
Robert.Goldspink@gmail.com
date 5.13.07

X1

Existing Buildings
Photographs
APN 110-141-07 & 08
Development Permit Appl. # 07-0267

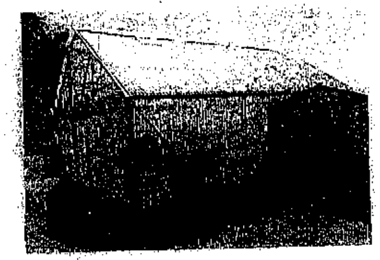


Greenhouse 15C
West Elevation

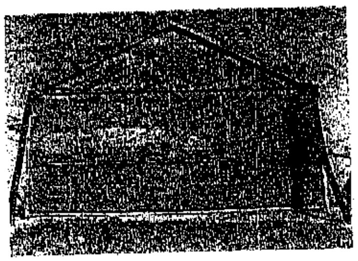


South Elevation

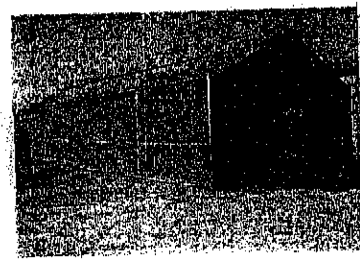
East Elevation



North Elevation



Screenhouse 17
West Elevation



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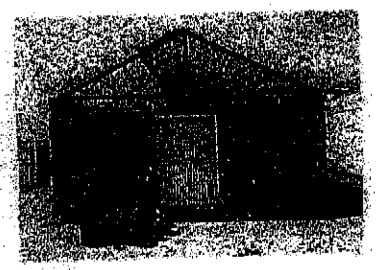
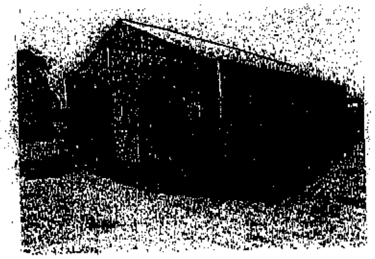
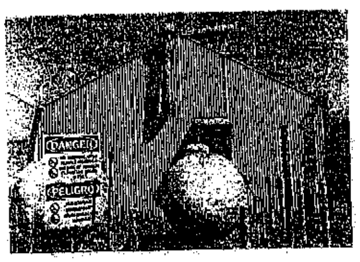


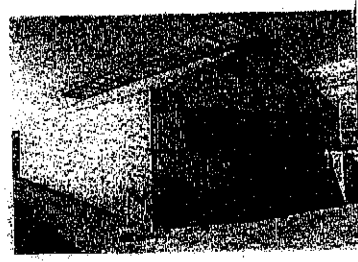
East Elevation



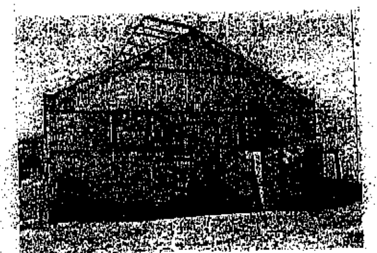
North Elevation



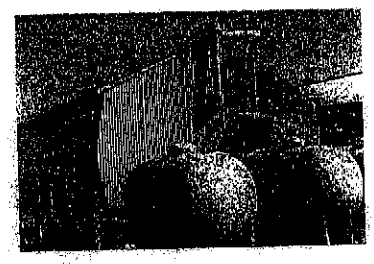
Greenhouse 15B
West Elevation



South Elevation



East Elevation



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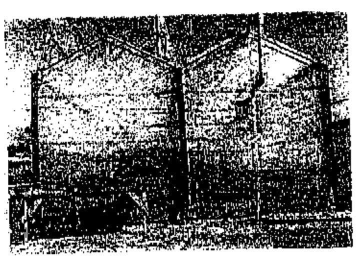
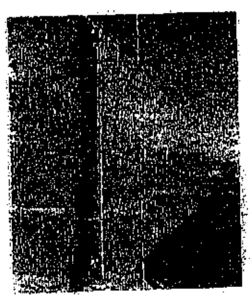


Greenhouse 15A
West Elevation



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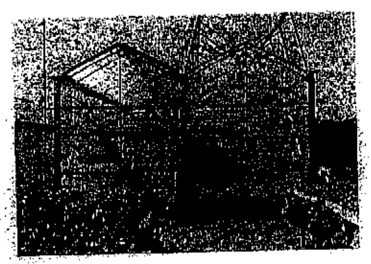

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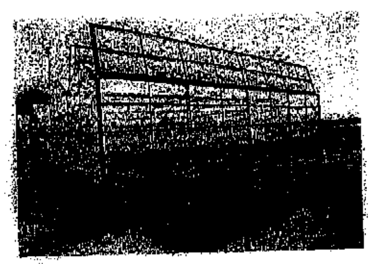


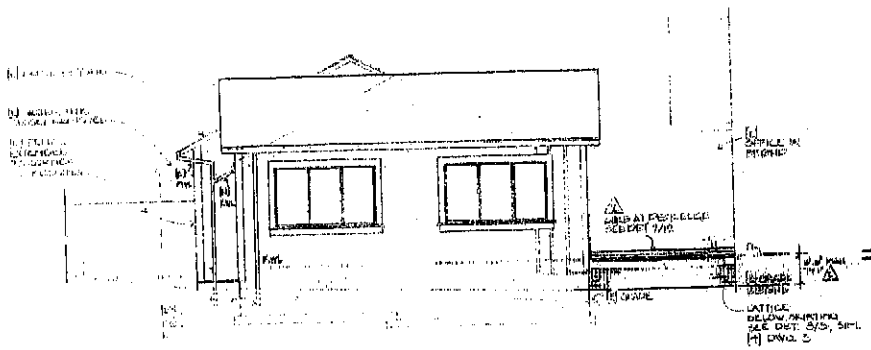
North Elevation

CASSIN RANCH
Proposed Development Plan
151 Silliman Road
Watsonville CA 95076

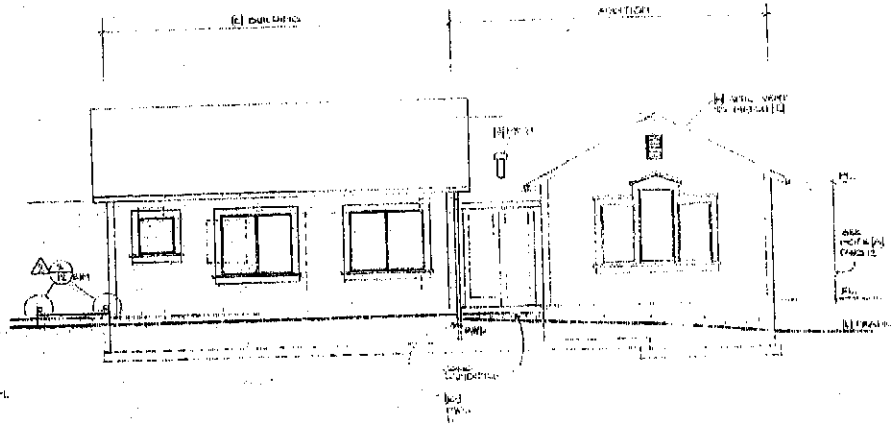
ROBERT J. GOLDSPINK ARCHITECTS

X3

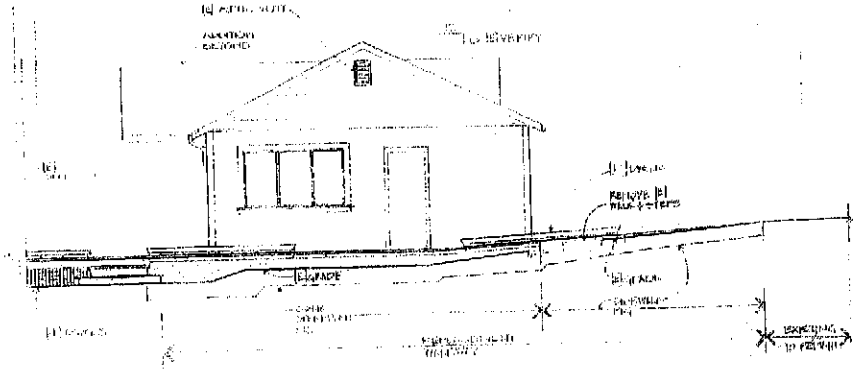
Existing Buildings Photographs
APN 110-141-07 & 08
Development Permit App. # 07-0267



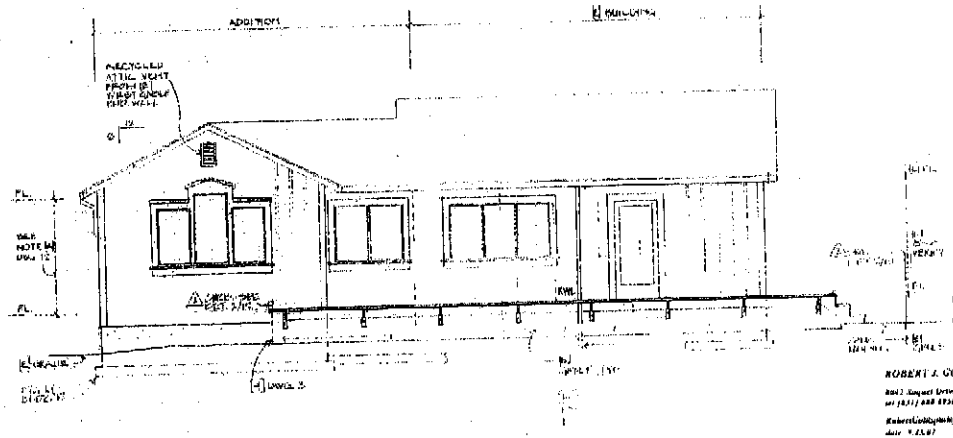
West Elevation



North Elevation



East Elevation



South Elevation

45/93

CASSIN RANCH

Proposed Development Plan
151 Silliman Road
Pittsburg CA 95076

ROBERT J. GOLDSPINK ARCHITECTS

X5

Existing Elevations of Office Building 4B

APN 110-141-07 & 08
Development Permit App. # 07-0267

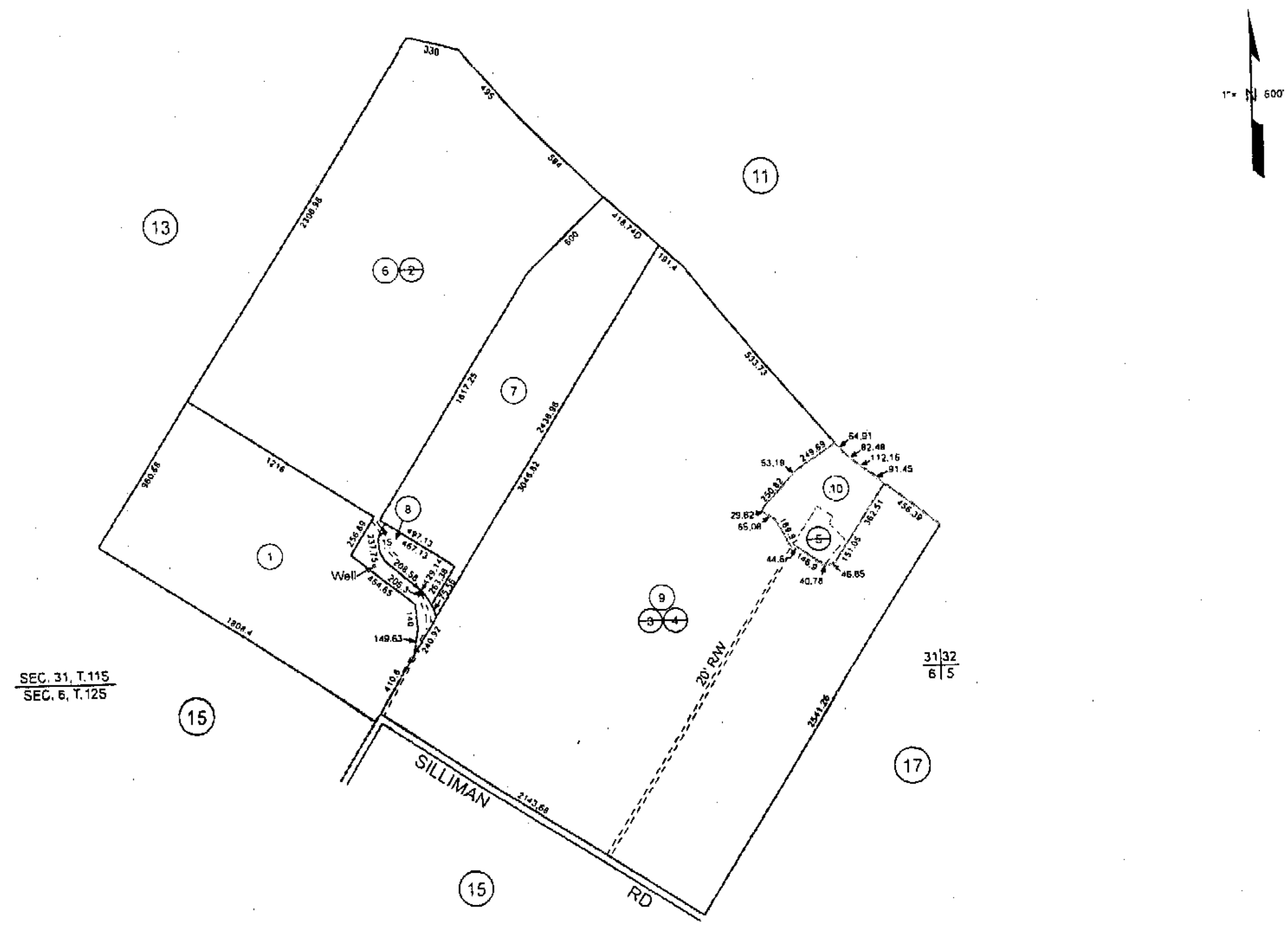
FOR TAX PURPOSES ONLY

SALSIPUEDES RANCHO

POR. SEC. 31, T.11S. & SEC. 6, T.12S., R.3E. M.D.B. & M.

Tax Area Code
69-258

110-14



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

Assessor's Map No. 110-14
County of Santa Cruz, Calif.
Sep. 1997

Application 07-0267
Attachment 5

Electronically drawn 9/17/97 KSA
Rev. 4/9/98 CB (Tax Consolidation)
Rev. 1/9/07 mvm (6-0056565, LBA 1-09 & 10)

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our investigation, the proposed project appears compatible with the site, provided the following recommendations are incorporated into the design and construction of the proposed project.

Based upon our exploratory borings and laboratory testing, the near surface soils at the approximate 4.5 acre project site consist of sandy silts and sandy clays. The expansive potential of the clayey soils were initially determined utilizing Atterburg Limits testing with near surface Plasticity Indices (PI) ranging from 21 to 28. We later returned to the site to collect additional bulk samples to perform a hydrometer and Expansive Index testing to conform to the requirements of the new California Building Code (CBC) effective 1 January 2008. With a clay particle content of 36 percent and an Expansion Index of 93, the near surface clay soils at the project site exhibit a moderately high potential for shrink/swell with moisture variation.

To mitigate the expansive characteristics of the near surface site soils, we present design criteria in this report for two alternative foundation systems to support proposed Research Center structures:

1.Removal of expansive soils to at least 30 inches below existing grade and replacement with non-expansive engineered fill to support structures with shallow conventional spread footings with raised wood floors or concrete slabs on grade;

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

Site Grading

1. The geotechnical engineer should be notified at least four (4) working days prior to any site clearing or grading so that the work in the field can be coordinated with the grading contractor and arrangements for testing and observation can be made. The recommendations of this report are based on the assumption that the geotechnical engineer will perform the required testing and observation during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

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

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

7. If project site grading is performed during or shortly after the rainy season, the grading contractor may encounter compaction difficulty, such as pumping or bringing free water to the surface, in the upper surface clayey and silty soils. If compaction cannot be achieved after adjusting the soil moisture content, it may be necessary to over-excavate the subgrade soil and replace it with angular crushed rock to stabilize the subgrade. We estimate that the depth of over-excavation would be approximately 24 inches under these adverse conditions.

8. Import soils utilized as engineered fill at the project site should:

1) Be free of wood, organic debris and other deleterious materials;
2) Not contain rocks or clods greater than 2.5 inches in any dimension;
3) Not contain more than 25 percent of fines passing the #200 sieve;
4) Have a Sand Equivalent greater than 18;
5) Have a Plasticity Index less than 15;
6) Have an R-Value of not less than 30; and
7) Be approved by the project geotechnical engineer. Contractor should submit to the geotechnical engineer samples of import material or utility trench backfill for compliance testing a minimum of 4 days before it is delivered.

Spread Footings

12. For structures with slab on grade floors or raised wood floors, footings should be founded at least 12 inches below the lowest adjacent grade and supported by at least 18 inches of non-expansive engineered fill compacted to at least 90 percent relative compaction. The building pads plus a three (3) feet overbuild beyond the perimeters of the structures should be cut to 30 inches below the lowest adjacent grade. The exposed subgrade should be scarified to a depth of at least 8 inches; moisture conditioned to about 4 percent over optimum, and compacted to 87(±) percent relative compaction (85% to 90%). Non-expansive engineered fill (PI less than 15) should be placed in the building pad excavation in 8 inch lifts and compacted to at least 90% relative compaction for an allowable bearing capacity of 2,000 psf one-third to include short-term seismic and wind loads. For structures with raised wood floors only, an alternative spread footing system would be to support the structure upon 36 inch deep footings bearing upon undisturbed native soil for an allowable bearing capacity of 2,000 psf plus a one-third increase for seismic and wind loads short term loading. The footings should be reinforced as required by the structural designer based on the actual loads transmitted to the foundation.

13. The foundation trenches should be kept moist and be thoroughly cleaned of all slough or loose materials prior to pouring concrete. In addition, all footings located adjacent to other footings or utility trenches should have their bearing surfaces founded

17. Prior to placing concrete, all foundation excavations should be thoroughly cleaned. The foundation excavations must be observed by the geotechnical engineer or his representative prior to placing concrete.

Post Tensioned Slabs on Grade Criteria

18. If economically feasible, post tensioned slabs on grade may be utilized at the project site to support the proposed improvements. Geotechnical design criteria for post tensioned slabs on grade constructed directly upon undisturbed project site expansive soils is as follows:

a. Moisture Variation - e_{medge}= 2.9 ft and $e_{mcenter}$= 6.0 ft

b. % Clay = 40 %

c. Clay Type = Montmorillonite

d. Depth to Constant Suction (Z) = 7 ft

e. Constant Suction (pF) = 3.6

f. Moisture Velocity (in/month) = 0.7

g. Differential Swell (in) y_{medge} = 0.5 inch and $y_{mcenter}$ = 0.8 inch

Post tensioned slabs on grade should be designed and constructed in accordance with the current edition of the Design And Construction Of Post-Tensioned Slabs-On-Ground by the Post Tensioning Institute.

Where floor dampness must be minimized or where floor coverings will be installed, concrete slabs-on-grade should be constructed on a capillary break layer at least 6 inches thick, covered with a membrane vapor retarder. Capillary break material should be free-draining, clean, angular gravel such as 3/4-inch drainrock placed atop at least 18 inches of non-expansive engineered fill compacted to at least 90 percent relative compaction. The capillary break gravels should mechanically rolled or compacted for consistent slab support. The gravel should be washed to remove fines and dust prior to placement on the slab subgrade. The vapor retarder should be a high quality membrane at least 10 mil thick and puncture resistant. An acceptable product for use as a vapor retarder is the Stego Wrap 10-mil Class A vapor retarder system manufactured by Stego Industries, LLC. Provided the Stego Wrap system is installed per manufacturer's recommendations, the concrete may be poured directly upon the Stego Wrap Vapor Retarder. The primary considerations for installing the vapor retarder are: taping all seams; sealing all penetrations such as pipe, ducting, wire, etc; and repairing all punctures.

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

least 95 percent relative compaction The native expansive soil subgrade underlying the aggregate base should be scarified to a depth of at least 8 inches; moisture conditioned to about 4 percent over optimum, and compacted to 87(±) percent relative compaction (85% to 90%).

Site Drainage

21. Thorough control of runoff is essential to the performance of the project. Storm water runoff should be directed away from site improvements including structures, pavement sections and exterior slabs on grade. Storm water runoff should be collected and conveyed away from the proposed development to a suitable facility such as a retention pond situated below the slope at the southwest perimeter of the project site.

22. Full roof gutters should be placed around all eaves. Discharge from the roof gutters should be conveyed away from the downspouts by splash blocks, lined gutters or closed conduits.

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

Robert L. DeWitt & Associates, Inc.
Civil Engineers and Land Surveyor
1607 Ocean Street, Suite 1
Santa Cruz, CA 95060
(831)425-1617 (831)425-0224 (fax)

CLIENT _____ JOB NO. _____
SHEET NO. _____ _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

DRAINAGE STUDY

for

DRISCOLL STRAWBERRY ASSOCIATES, INC.

Located at:
Cassin Ranch
151 Silliman Road
Watsonville, CA

A.P.N. 110-141-07 & -08

Prepared at the request of

Driscoll Strawberry Associates
151 Silliman Road
Watsonville, CA 95076

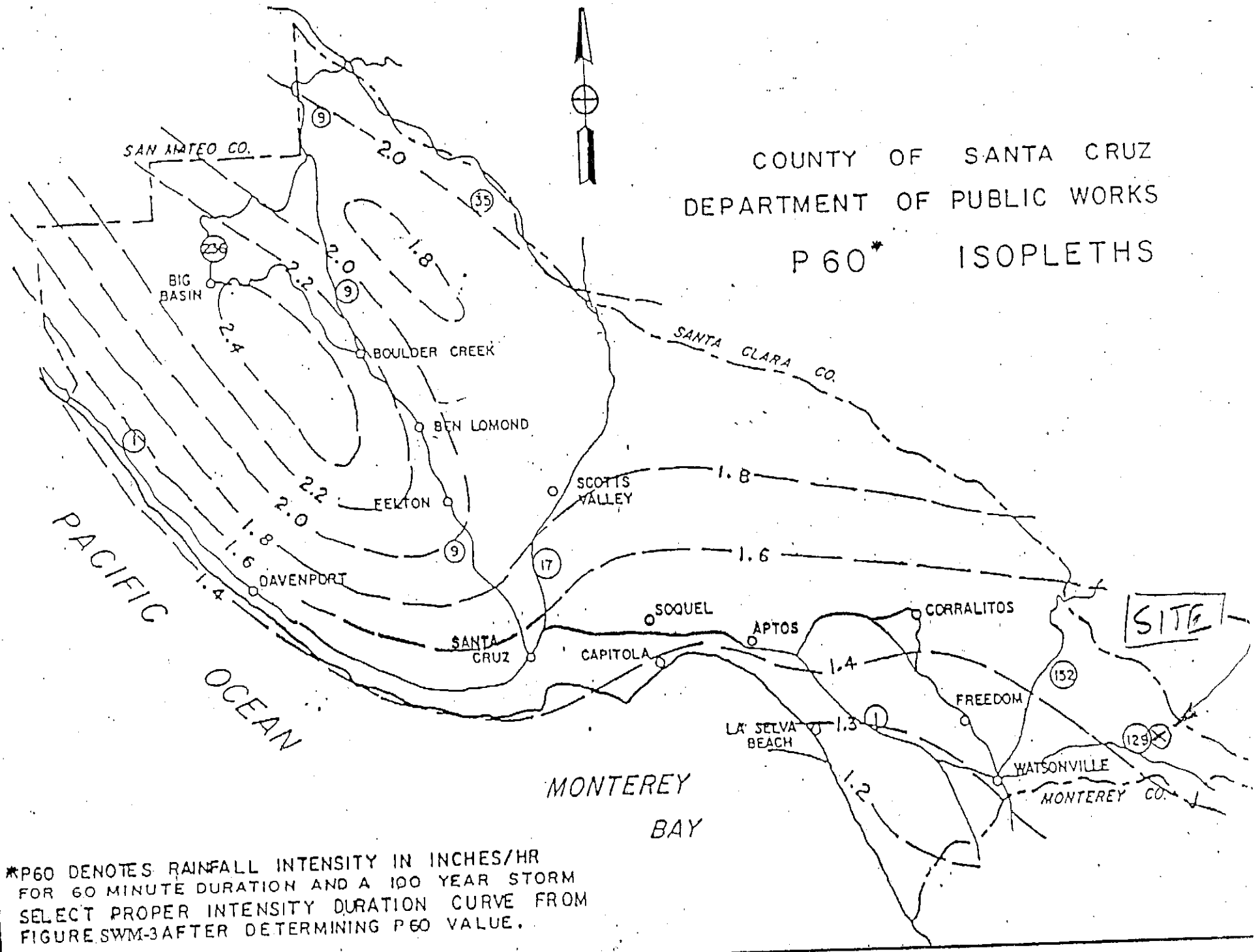
Prepared by:
Robert L. DeWitt, P.E.

14-Sep-07
Job No. R06176

Application 07-0267
Attachment 7

12/05

65/93



*P60 DENOTES RAINFALL INTENSITY IN INCHES/HR FOR 60 MINUTE DURATION AND A 100 YEAR STORM SELECT PROPER INTENSITY DURATION CURVE FROM FIGURE SWM-3 AFTER DETERMINING P60 VALUE.

FIG. SWM-2

Robert L. DeWitt & Associates, Inc.
Civil Engineers and Land Surveyors
1607 Ocean Street, Suite 1
Santa Cruz, CA 95060
(831)425-1617 (831)425-0224 (fax)

CLIENT _____ JOB NO. _____
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

Post-Development Runoff:

1. Impervious Areas:

Existing impervious Areas =	56,999 sq. ft.
Less buildings to be removed =	< 2,360 >
	54,540
Add new buildings. =	+ 25,490
	80,030
Add new paving =	+ 57,320
	137,400 sq. ft. = 3.15 Ac (52%)

2. Pervious Areas: By subtraction:

Pervious Areas = Total − impervious areas
= 6.08 − 3.15 = 2.93 Ac. (48%)
(100%)

3. Runoff calculations: $Q = CiA$

Impervious Areas: $Q = 0.9 \times 2.0 \times 3.15 =$ 5.7 cfs.

Pervious Areas: $Q = 0.2 \times 2.0 \times 2.93 =$ 1.2 cfs.

Total = 5.7 + 1.2 = 6.9 cfs

EXIST AREAS

R06176 CASSIN RANCH
IMPERVIOUS AREAS

BY CATEGORY IN SQ. FT.

BLDG (NORMAL)	1,056		BLDG (GREENHOUSES)	9,255	
	2,143			11,001	
	139			3,146	
	594			575	
	370			1,205	
	2,198			1,214	
	1,230			1,528	
	45			610	
	7,775			755	
				29,289	
BLDG (TIN)	5,105		TENTS/TRAILERS	560	
	2,564			1,070	
				418	
	7,669			**2,048**	
AC PAVING	305		SLABS (CONC)		
	777			55	757 631
	1,082			86	408 659
				124	144
				1,152	40 40
WALKS/STEPS	799				**4,096**
	35				
	17				
	851		TRANSFORMER		**15**
PATIO/STEPS	**1,349**		DECKS (WOOD)?	380	
				1,115	
POOL W/DECK	457			**1,495**	
	487				
	944		WALLS	45	63
				28	150
					286
Total sq ft	**56,899**				

Robert L. DeWitt and Associates, Inc.
Civil Engineers & Land Surveyors

1607 Ocean Street - Suite 1
Santa Cruz, CA 95060
Telephone 831 425-1617
Fax Number 831 425-0224
www.rldewitt.com

February 1, 2008
Job No. R06176

County of Santa Cruz
Department of Public Works
701 Ocean Street
Santa Cruz, CA 95060

Attn: Rachel Fatoohi, Stormwater Management Supervisor

Re: Cassin Ranch
APN 110-141-07 Appl. No. 07-0267
Watershed Analysis

Dear Rachel,

I have reviewed your response dated January 30 to my letter on January 17 regarding the downstream drainage path. I am pleased that the information was helpful and appreciated.

A study of the capacity of the downstream channel from the subject property to the Pajaro River is a very big task, as you can imagine with your professional background. And due to the nature of the farming operations in the area, there are many unpredictable outcomes due to the various uses of the runoff by the various farming operations, such as irrigation ponds and diversions. To embark upon a detailed capacity study with any meaningful results would be a gigantic task involving extensive surveying, mapping, hydrology, field measurements and interviews with the farming operators, and hydraulic calculations for the various reaches of channels and culverts in the downstream channel.

We have performed a preliminary analysis of the watershed tributary to the discharge point in the channel at the concrete apron crossing on the access roadway. As you will note from the attached mapping and analysis, there is approximately 564 acres of land that contributes drainage to this point. For a 10-year return period storm, the rough estimate of the potential peak flow would be approximately 169 cubic feet per second (cfs) at this location, using the rational formula.

To put that in the proper perspective, according to the drainage study prepared by this firm dated September 14, 2007, the increase in the peak flow runoff for the proposed improvements is approximately 2.6 cfs, or about a 1.5 % increase in the flows at the discharge point.

As you know, the plan includes a proposed detention/retention feature to restrict the runoff rate to the predevelopment rate, resulting in zero increase in flows to the downstream system for a 10-year event.

In addition, as the study moves downstream, additional watershed area is picked up, making the additional runoff from the project even less significant.

Robert L. DeWitt & Associa' , Inc.
Civil Engineers and Land Surveyors
1607 Ocean Street, Suite 1
Santa Cruz, CA 95060
(831)425-1617 (831)425-0224 (fax)

CLIENT Driscoll JOB NO. R06176
SHEET NO. 1 OF 4
CALCULATED BY RLD DATE 2-1-08
CHECKED BY ______ DATE ______
SCALE ______

Watershed Analysis (above discharge point):

A. Watershed Area: from USGS mapping (Co. GIS site)

By measurement on map: W1 = 216 Ac
W1a = 130 Ac.
W1b = 218 Ac.
Total . . . 564 Ac. ←

B. Time of concentration:
Ref: Fig SD-8: [H] = 950 - 80 = 870'
From mapping [L] = 8,600' = 1.63 mi.

t_c = 22 min.

C. Intensity: Ref. Fig SWM-3

For P_{60} = 1.4, t_c = 22 min; i_{10} = 1.5 in/hr.

D. Runoff coefficient: C = 0.2 for undeveloped agricultural lands.

E. Peak Flow: Q_{10} by Rational Method

Q_{10} = CiA = 0.2 × 1.5 × 564 = 169 cfs. ←

F. Increase in site runoff: (Ref: Drainage Study 9-14-07)

Q_{post} = 6.9 cfs
$- Q_{pre}$ 4.3
Incr = 2.6 cfs for 10-yr storm.

Note: $\frac{2.6}{169}$ = 1.5%

Conclusion: With proposed detention for increase in runoff project will have de minimus effect downstream.

Rainfall Intensity - Duration Curves

10 Yr. Return Period

((4.29112)*(1.1952)^P60_VALUE)/(DURATION^((0.60924)*(0.78522)^P60_VALUE))

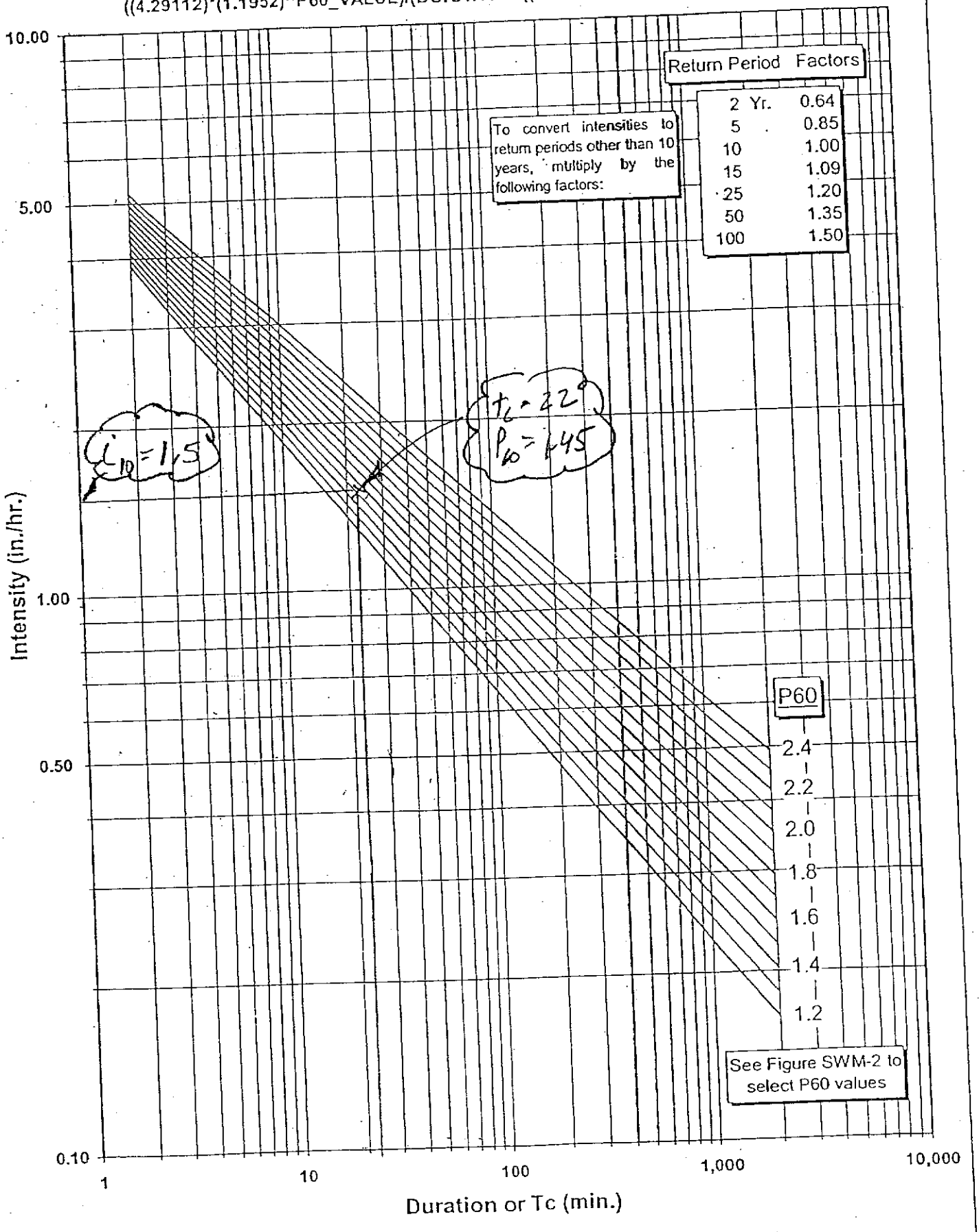


FIG. SWM-3

HARO, KASUNICH AND ASSOCIATES, INC.
CONSULTING GEOTECHNICAL & COASTAL ENGINEERS

RECEIVED BY [illegible] DATE 8/29/08

Project No. SC9717
27 August 2008

R06176

DRISCOLL STRAWBERRY ASSOCIATES
151 Silliman Road
Watsonville, California 95076

Attention: Ms. Jane Nelson

Subject: Percolation Testing

Reference: Proposed Detention Pond
Cassin Ranch Research Center
151 Silliman Road, Watsonville
APN 110-141-07 & -08
Santa Cruz County, California

Dear Ms. Nelson:

This Geotechnical Report outlines the results of our exploratory soil borings and percolation testing at the proposed storm water runoff detention pond area situated near the Cassin Ranch Research Center, 151 Silliman Road in Santa Cruz County, California; see the Site Location Map, Figure 1 in the Appendix of this report. Our firm completed the Geotechnical Investigation for the development and expansion of the Cassin Ranch Research Center on 30 May 2008.

The purpose of our recent site work was to determine the soil profile beneath the proposed detention pond site and measure the percolation rate of the near surface soils to aid in the design of the storm water runoff control system for the research center development.

Our scope of work included:

a. Site reconnaissance, communication with the project civil engineers and Underground Service Alert (USA) utility locates;
b. Drilling and sampling one (1) exploratory boring to 26.5 feet below grade;
c. Drilling four exploratory borings to between 5 and 7 feet below grade and completing the borings with perforated pipe and gravel for percolation testing;
d. Pre-saturating the percolation test holes by filling to grade with water 24 hours prior to percolation testing;
e. Percolation testing of the four test holes using the Falling Head Method;

Application 07-0267
Attachment 9

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

time observed, and it is not warranted that they are representative of subsurface conditions at other locations or times.

Laboratory Testing

The laboratory testing program was directed toward determining pertinent engineering and index soil properties.

The natural moisture contents and dry densities were determined on selected samples and are recorded on the boring logs at the appropriate depths.

The strength parameters of the underlying earth materials were determined from field test values derived from Standard Penetration Testing resistance of the in situ soils.

The results of the field and laboratory testing appear on the "Log of Test Boring" opposite the sample tested.

Subsurface Conditions

Based on our subsurface exploration, the general soil conditions below the site (B-1) consist of silty clays and clayey silts to about 21 feet below grade overlying interbedded silty sands with gravels and silty/sandy clays to 26.5 feet below grade.

The drilling spoils from the shallow percolation test holes, P-1, P-2, P-3 & P-4 consisted of fine grained soils, silty clays and clays silts.

Groundwater

We did not observe any indication of a stable groundwater level at our exploratory boring location, B-1; drilled and sampled to 26.5 feet below grade at the percolation pond site on 1 July 2008.

It should be noted that groundwater levels may fluctuate due to variations in rainfall, crop irrigation or other factors not evident during our investigation.

Percolation Testing

The four percolation test holes, P-1, P-2, P-3 & P-4, were pre-saturated on 1 July 2008 by filling the test holes to grade with potable water.

We returned to the site, 24 four hours later, on 2 July 2008 to test the percolation holes using the Falling Head Method in order to establish a rate of percolation for a 4 hour period. The four test holes were once again filled to grade with potable water and the surface or level of the water in each test hole was measured at one-half hour intervals.

Date	Test Hole 1	Test Hole 2	Test Hole 3	Test Hole 4
4 July 2008	H_2O @ 32"bg = 10"/28 hrs (<1"/hr)	H_2O @ 25"bg = 6"/28 hrs (<1"/hr)	H_2O @ 44"bg = 6"/28 hrs (<1"/hr)	H_2O @ 36"bg = 9"/28 hrs (<1"/hr)
6 July 2008	H_2O @ 39"bg = 7"/23 hrs (<1"/hr)	H_2O @ 35"bg = 10"/23 hrs (<1"/hr)	H_2O @ 48"bg = 4"/23 hrs (<1"/hr)	H_2O @ 44"bg = 8"/23 hrs (<1"/hr)

bg[1] = below adjacent surface grade

Recommendations

The measured percolation rates of the near surface soils at the proposed detention pond site are low. To account for the long term reduction in the percolation rates due to silting of the surface soils, we recommend the outlined percolation rates be further reduced. A minimum Factor of Safety of 2 should be used for percolation basin design. It will also be necessary to maintain the detention pond each year, prior to the winter rainy season, by scraping the pond basin to remove accumulated fines in order to promote percolation of the detained storm water runoff.

If you have any questions regarding the project, please call our office.

Very truly yours,

HARO, KASUNICH AND ASSOCIATES, INC.

Rick L. Parks
G.E. 2603

RLP/sq
Attachments
Copies: 3 to Addressee
1 to Robert L. DeWitt & Associates
Attn: Robert DeWitt, PE
1 to Robert J. Goldspink, Architect

COUNTY OF SANTA CRUZ
DISCRETIONARY APPLICATION COMMENTS

Project Planner: Samantha Haschert
Application No.: 07-0267
APN: 110-141-06

Date: March 18, 2009
Time: 15:40:27
Page: 1

Environmental Planning Completeness Comments

========= REVIEW ON JUNE 25, 2007 BY ROBERT S LOVELAND =========
NO COMMENT

Environmental Planning Miscellaneous Comments

========= REVIEW ON JUNE 25, 2007 BY ROBERT S LOVELAND =========

Conditions of Approval:

1. Submit a soils report (3 copies) completed by a California licensed geotechnical engineer for all proposed structures.

2. Submit a grading/drainage plan completed by a licensed civil engineer for review and approval.

3. Obtain a grading permit if required.

4. Submit an erosion/sediment control plan for review and approval.

Dpw Drainage Completeness Comments

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

The submittal is incomplete and lacks even the most basic information to give specific comments. Please provide engineered drainage/site plan showing all proposed improvements and best managment practises on site to mitigate the impact of the extensive development proposed. The project is not allowed to release more than pre-devlopment runoff rates. The mitigations to be considered shall be chosen to minimize the impacts of likely drainage problems such as stormwater runoff pollution, downstream erosion and sedimentation impacts resulting from the new impervious areas. Consider eliminating all unnecessary paving and where paving is necessary please consider alternative pervious or semi impervious surfacing. Show how site runoff is proposed to be handled until it reaches a safe point of release such as an adequate drainage system or a water course. Provide downstream impact assessment idetifying capacity restrictions in existing drainage facilities receiving site runoff and identify the water body receiving the flow. The pre-devlopment release rate will be decided once the capacity limitation is identified by the project's civil engineer and reviewed/accepted by the Stormwater Management staff. Qantify the flow from offsite upstream drainage areas draining toward the site and show how the flow will be handled. Include the drainage area map used to quantify the flow. provide clear topo information per County Design Criteria Part 1, Section A.1.g as applicable.The comments above are general and more detailed comments will be made once we receive the engineered plans and the downstream assessment.The applicant is encouraged to meet with Stormwater Management staff before preparing the next submittal. Provide clear legend on the plans for the proposed improvements. The provided Key is hard to follow and does not make it easy to see the overall picture.
========= UPDATED ON JUNE 25, 2007 BY RACHEL J FATOOHI =========

natural drainage pattern; the impacts of which need to be evaluated before this diversion is deemed acceptable.

If you have questions, please contact me at 831-233-8083.

========= UPDATED ON AUGUST 8, 2008 BY RACHEL J FATOOHI =========
The submittal does not include civil plans for storm water management chang es per our discussion of 5/30/08. No review was done for this submittal

========= UPDATED ON SEPTEMBER 22, 2008 BY LOUISE B DION =========
Application with civil plans dated August 28, 2008, correspondence from Driscoll-s dated August 18, 2008, correspondence from Robert DeWitt dated September 2, 2008 and reports from Haro, Kasunich & Associates dated August 27, 20008 and May 30, 2008 has been received. The application is deemed complete with respect to the discretionary permit application stage. See miscellaneous comments to be addressed during building permit application.

========= UPDATED ON OCTOBER 28, 2008 BY LOUISE B DION =========
========= UPDATED ON OCTOBER 28, 2008 BY LOUISE B DION =========

Dpw Drainage Miscellaneous Comments

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

========= REVIEW ON JUNE 25, 2007 BY RACHEL J FATOOHI ========= Zone 7A Fees shall be assessed on all the new impervious areas. Semi-impervious areas shall be assessed half the applicable fee. Provide clear legend identfiying existing and proposed im-pervious areas. Currently the fee is $0.95 per square foot of new impervious area.
========= UPDATED ON OCTOBER 27, 2007 BY LOUISE B DION =========
No new miscellaneous comments.

========= UPDATED ON SEPTEMBER 25, 2008 BY LOUISE B DION =========

Miscellaneous comments to be addressed during building permit application:

1. Complete review of drainage calculations, detention basin, infiltration trench and orifice sizing will be performed during building permit review.

2. While the correspondence from Driscoll-s dated August 18, 2008 indicates verbal approval from the downstream property owner, Joe Kalich, a recorded maintenance

Greg Martin 454-2811

======== UPDATED ON JANUARY 28, 2009 BY GREG J MARTIN ========
======== UPDATED ON JANUARY 28, 2009 BY GREG J MARTIN ========

Dpw Road Engineering Miscellaneous Comments

======== REVIEW ON JUNE 18, 2007 BY ANWARBEG MIRZA ========
NO COMMENT
======== UPDATED ON JANUARY 28, 2009 BY GREG J MARTIN ========
======== UPDATED ON JANUARY 28, 2009 BY GREG J MARTIN ========

Environmental Health Completeness Comments

======== REVIEW ON JUNE 18, 2007 BY JIM G SAFRANEK ========
======== UPDATED ON JUNE 18, 2007 BY JIM G SAFRANEK ========
NO COMMENT

Environmental Health Miscellaneous Comments

======== REVIEW ON JUNE 18, 2007 BY JIM G SAFRANEK ========
The proposed project requires that septic system be upgraded to meet current standards. Applicant must obtain an approved sewage disposal permit for an upgrade. Contact the appropriate Land Use staff of Environmental Health at 454-2022.
The approved septic application is a buidlign phase req. and will be needed at time of EHS Building Clearance.

Pajaro Valley Fire District Completeness Comments

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

======== REVIEW ON JUNE 21, 2007 BY COLLEEN L BAXTER ========
DEPARTMENT NAME:PAJARO VALLEY FIRE
Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter:
Each APN (lot) shall have separate submittals for building and sprinkler system plans.
The job copies of the building and fire systems plans and permits must be onsite during inspections.
NOTE on the plans the OCCUPANCY CLASSIFICATION, BUILDING CONSTRUCTION TYPE/FIRE RATING and SPRINKERED or NONSPRINKERED as determined by the building offical and outlined in Part IV of the California Building Code, e.g. R-3, Type V-N, Sprinklered.
Note on these plans the occupancy load of each area. Show where the occupancy load signs will be posted.
SHOW on the plans a public fire hydrant within 250 feet of any portion of the property, along the fire department access route, meeting the minimum required fire flow for the building. This information can be obtained from the water company.
NOTE on the plans that the building shall be protected by an approved automatic fire sprinkler system complying with the currently adopted edition of NFPA 13 and Chapter 35 of California Building Code and adopted standards of the authority having juris-

a separate fire alarm permit and fee is required by the fire department having jurisdiction. Fire Alarm plans (3 sets) shall be submitted and approved prior to commencing work.
SHOW ON PLANS DIMENSIONS OF ACCESS ROADS. ALSO SHOW ON PLANS WHAT MATERIALSGREEN-HOUSES ARE TO BE CONSTRUCTED OF. THE NEW OFFICE WILL BE REQUIRED TO BE SPRINKLERED PER NFPA 13. ========= UPDATED ON OCTOBER 10, 2007 BY COLLEEN L BAXTER ========= ========= UPDATED ON OCTOBER 10, 2007 BY COLLEEN L BAXTER =========
NO NEW FIRE NOTES AT THIS TIME, ALL COMMENTS HAVE BEEN ADDRESSED. ========= UPDATED ON OCTOBER 10, 2007 BY COLLEEN L BAXTER =========

Pajaro Valley Fire District Miscellaneous Comments

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

========= REVIEW ON JUNE 21, 2007 BY COLLEEN L BAXTER =========
========= UPDATED ON OCTOBER 10, 2007 BY COLLEEN L BAXTER =========

10-17-07 The details provided are insufficient to identify that each new, remodeled or existing accessible building is accessible. Identify the types of entries. Identify level entries, ramps, steps, landings, and their construction types.

7/15/08 Not resolved.
The type of accessible entry, ramps, landings and details to determine if new buildings and existing accessible buildings are accessible, are not provided.

7/28/08 Resolved. Note: BPA submittal must incorporate all accessibility details.

CBC 1114B.1.2 Accessible Route of Travel
At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, other buildings on the site, and public streets or sidewalks, to the accessible building entrance they serve. Refer also to 1127B for Exterior Routes of Travel. Where more than one route is provided, all routes shall be accessible. All spot elevations, slopes, cross slopes, ramps, stairs, curb ramps, striping, signage and any other accessible requirements are to be shown on the plans.
Comment: Must be shown on an accessibility plan. Required information. Note: Check code-assembly occupancies (A) must have a 20' clear and unobstructed exit discharge to the public way and it must be accessible too.

10-17-07 Not resolved. The use of a passenger loading zone in lieu of an accessible Route of Travel to the public R/W will require an Unreasonable Hardship Request and justification as equivalent facilitation at the time of permit submittal, under CBC Section 1127B.1 Exception 1. The proposed passenger loading zone also appears to conflict with the pedestrian route of travel. The route/paths of travel must be slip-resistant 1133B.7.1.1

7/15/08 See Accessible Parking below.

7/28/08 Resolved.

CBC 1129B Accessible Parking Required
Each lot or parking structure where parking is provided for the public as clients, guests or employees, shall provide accessible parking as required by this section.
Comment: Where is it?

10-17-07 Identify the accessible van parking spaces and provide a standard detail for accessible parking spaces.

7-15-08 Not resolved. Parking (1129B) and passenger loading zone (1131B) details were not provided.

7/28/08 Resolved. Reference the amended 8 ½ x 11 detail submitted on 7/25/08.

Path of Travel Verification Form (refer to brochure)
To be submitted at the time of Building Permit application.

CBC 1133B General Accessibility for Entrances, Exits and Paths of Travel
Provide an Egress Plan showing maneuvering clearances at all doorways, passageways, and landings.
Comment: Required – floor plan and exiting plan is required information.

10-17-07 Not resolved. See Building Accessibility above.

7/15/08 Not resolved
The requested information was not provided.

7/28/08 Resolved.

Plumbing Fixture Requirements – Accessible Restrooms
Please refer to the 2001 California Plumbing Code, Table 4-1 for plumbing fixture requirements for this occupancy.
Comment: Show restroom floor plans

COUNTY OF SANTA CRUZ
Planning Department

AGRICULTURAL BUFFER DETERMINATION

Owner: BERKSHIRE INVESTMENTS, LIC
Address: 11 QUAIL RUN CIRCLE, #203
SALINAS, CA 93907

Permit Number: 07-0267
Parcel Number(s): 110-141-07,-08

PROJECT DESCRIPTION AND LOCATION

Permit to expand an existing agricultural research facility to include 7504 square feet of offices, 9044 square feet of greenhouses, 3370 square feet of laboratory, a 2304 square foot office/conference room, and a 3024 square foot storage building. Requires an Amendment to permits 88-1104, 01-0422, and 03-0195 and an Agricultural Buffer Determination to decrease the minimum required 200 foot buffer to a 45 foot setback from APN 110-141-06 to the west, a 137 foot setback from APN 110-141-06 to the south, a 105 foot setback from APN 110-141-01, a 90 foot setback from the existing agricultural use on the subject parcel to the north, and a 100 foot setback from the existing agricultural use on the subject parcel to the south.

SUBJECT TO ATTACHED CONDITIONS

APAC Approval Date: 8/21/08

Effective Date: 9/05/08
Subject to final discretionary review if Zoning Admin., Planning Com., or Board action is required.

Exp. Date (if not exercised): see conditions

Coastal Appeal Exp. Date: N/A

____ This project requires a Coastal Zone Permit, which is not appealable to the California Coastal Commission. It may be appealed to the Board of Supervisors. The appeal must be filed within 14 calendar days of action by the decision body.

____ This project requires a Coastal Zone Permit, the approval of which is appealable to the California Coastal Commission. (Grounds for appeal are listed in the County Code Section 13.20.110.) The appeal must be filed with the Coastal Commission within 10 business days of receipt by the Coastal Commission of notice of local action. Approval or denial of the Coastal Zone Permit is appealable. The appeal must be filed within 14 calendar days of action by the decision body.

This permit cannot be exercised until after the Coastal Commission appeal period. That appeal period ends on the above indicated date. Permittee is to contact Coastal staff at the end of the above appeal period prior to commencing any work.

APAC REVIEW IS NOT A BUILDING PERMIT. A Building Permit must be obtained (if required) and construction must be initiated prior to the expiration date in order to exercise this permit.

By signing this permit below, the owner agrees to accept the terms and conditions of this permit and to accept responsibility for payment of the County's costs for inspections and all other actions related to noncompliance with the permit conditions. This permit shall be null and void in the absence of the owner's signature below.

Signature of Owner/Agent — Date: 10.15.08

Staff Planner — Date: 9/26/08

Application 07-0267
Attachment 12