County of San Mateo - Planning and Building Department

ATTACHMENT A

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit File Number: PLN 2002-00517 Board Meeting Date: February 9, 2016

Prepared By: James A. Castañeda, AICP For Adoption By: Board of Supervisors

RECOMMENDED FINDINGS:

Regarding the Environmental Review, Find:

1. That the Revised Final Environmental Impact Report (FEIR) is complete, correct, adequate, and completed in compliance with the California Environmental Quality Act (CEQA) and applicable State and County Guidelines in accordance with California Public Resources Code Section 21081.1(c).

2. That the Revised FEIR reflects the independent judgment and analysis of the County and was presented to the Board of Supervisors as the decision making body of the County, and that the Board of Supervisors reviewed and considered the information contained in the Revised FEIR prior to approving the Project.

3. That the mitigation measures identified in the Revised FEIR, placed as conditions on the project, and identified as part of this public hearing, have been incorporated into the Mitigation Monitoring and Reporting Plan in conformance with California Public Resources Code Section 21081.6, and that technical revisions have been made to certain mitigation measures as reflected in the Mitigation Monitoring and Reporting Plan and that all of the revised mitigation measures are equal or more effective than the original measures in avoiding or substantially lessening the significant environmental effects of the Project.

Regarding the Major Subdivision, Find:

4. That the proposed map, including the design and improvement of the proposed subdivision, is consistent with the applicable County General and specific plans. The subdivision will create 21 parcels, of which 19 will be developed, consistent with the use and density stipulated by the Medium-Low Density Residential General Plan land use designation. The proposed density of 1.58 dwelling units per acre conforms to the maximum allowed within the Medium-Low Density Residential General Plan land use designation.

5. That the site is physically suitable for residential development and the proposed density of development. The 19 parcels proposed for development are of sufficient size and shape to support single-family residences (the principally permitted use in the R-1/S-8 zoning district) as prepared by the proposed grading. Upon completion of the proposed grading plan for the subdivision, all proposed residential parcels will be capable of supporting a single-family residence.

6. That the design of the subdivision or the proposed improvements are not likely to cause substantial environmental damage, or substantially and avoidably injure fish or wildlife or their habitat as none are located within 100 feet of a creek or stream. The EIR identified potential impacts to biological resources, and concluded that, as mitigated, impacts would be considered less than significant. Mitigation measures proposed included requiring an additional biological survey to be conducted prior to grading, as well as direction if special-status species, previously unidentified, are discovered. The project will be required to adhere to the San Mateo Countywide Stormwater Pollution Prevention Program and General Construction and Site Supervision Guidelines (Condition Nos. 9 through 12).

7. That the design of the subdivision and type of improvements will not cause serious public health problems. As conditioned, the project will present negligible impacts to public health. The EIR thoroughly examines potential impacts and proposes mitigation measures to reduce any possible impact as a result of the grading and construction activities to a less-than-significant level. These mitigation measures are consistent with the Basic Construction Measures recommended by the Bay Area Air Quality District, which specify the type of heavy-duty equipment, off-haul practices, and other best practices to be required during grading activities. Regarding noise impacts, mitigation measures are included (Condition Nos. 8.a.c. and 20) to mitigate impacts from construction noise.

8. That the design of the subdivision and the proposed improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision. There are no existing easements on the subject properties other than a private access road to the existing water tank, which will be reconfigured in order to continue providing authorized access to this area, as well as to existing water lines, which will be relocated.

9. That the discharge of waste from the proposed subdivision into an existing community sewer system will not result in violation of existing requirements prescribed by a State Regional Water Quality Control Board pursuant to Division 7 (commencing with Section 13000) of the State Water Code. The project was referred to the Crystal Springs County Sanitation District (CSCSD) and has proposed mitigation measures for the project that will result in a zero-net increase in sanitary discharge through improvements to existing infrastructure in the vicinity by the applicant.

10. That the land is not subject to a contract entered into pursuant to the California Land Conservation Act of 1965 (the Williamson Act). The property is not subject to any Williamson Act contracts.

11. That the County has considered the effect of this project approval pursuant to the County Subdivision Regulations on the housing needs of the region and has balanced these needs against the public service needs of residents and available fiscal and environmental resources. As one of the few remaining undeveloped large parcels zoned for residential development in the urban unincorporated area, the creation of 19 lots for single-family residential development, consistent with the character of surrounding development, helps to meet the County's Regional Housing Allocation.

Regarding the Grading Permit, Find:

12. That this project, and the granting of this permit as conditioned, will not have a significant adverse effect on the environment. The project has been reviewed by Planning staff and the Department of Public Works, finding that the project can be completed without significant harm to the environment as conditioned. The project must comply with the standards for erosion and sediment controls (Section 8605.1), and submittal of a geotechnical report (Section 8605.3). Geotechnical reports and supporting documents have been provided as part of the County and environmental review (located within the DEIR appendices). The applicant will be required to implement an erosion and sediment control plan that has been reviewed and approved by both the Current Planning Section and the Department of Public Works, in accordance with County standards.

13. That this project, as conditioned, conforms to the criteria of the San Mateo County Grading Ordinance and is consistent with the General Plan. Planning staff and the Department of Public Works have reviewed the project and have determined its conformance to the criteria of Chapter 8, Division VII, San Mateo County Ordinance Code, including the standards referenced in Section 8605 and the San Mateo County General Plan, as detailed in Sections C.4 and C.1, respectively, of the Board of Supervisors February 9, 2016 staff report.

CONDITIONS OF APPROVAL

General Project Conditions

1. The approval applies only to the proposal, documents and plans as described in this report and materials approved by the Board of Supervisors on February 9, 2016. The Community Development Director may approve minor revisions or modifications to the project if they are consistent with the intent of and in substantial conformance with this approval. If revisions or modifications are deemed a major or significant change from the Board of Supervisors' approval,

said modifications must return to the Board of Supervisors for consideration and approval.

2. This subdivision approval is valid for two years, during which time a final map shall be filed and recorded. An extension to this time period in accordance with Section 7013.5.c of the Subdivision Regulations may be issued by the Planning Department upon written request and payment of any applicable extension fees if required.

3. The map shall be recorded pursuant to the plans approved by the Board of Supervisors; any deviation from the approved plans shall be reviewed and approved by the Community Development Director or Planning Commission, as deemed necessary.

Current Planning Section Conditions

4. Prior to recordation of the final map, the applicant shall pay In-Lieu Park Fees to the San Mateo County Planning and Building Department pursuant to Section 7055.3 of the Subdivision Regulations. The current amount is $8,626.10, but shall be calculated at the time of recordation using the most recent assessed value of the parcel as required by Section 7055.3 of the Subdivision Regulations.

5. All utilities serving the subdivision shall be installed underground.

6. The applicant must incorporate the use of pervious materials in the designs of driveways, patio areas, walkways, etc., for all future construction on the 19 parcels indicated for development. Pervious materials include, but are not limited to, pervious pavers on sand, turf block, pervious pavement, porous asphalt or gravel.

7. The applicant shall enter into a contract with the San Mateo County Planning and Building Department for all mitigation monitoring for this project. The fee shall be staff's cost, plus 10 percent required in the current Planning Service Fee Schedule. Planning staff may, at their discretion, contract these services to an independent contractor at cost, plus an additional 10 percent for contract administration.

8. **The applicant shall comply with all mitigation measures listed below (which are derived from the Environmental Impact Report:**

    8.a. **Mitigation Measure 4.1-1a:** Prior to recordation of the Final Map, the project applicant shall submit a landscape plan for review and approval by the San Mateo County Planning and Building Department Community Development Director and allow for a 30-day public review and commenting period. The landscape plan shall include the location, size, and species of any proposed landscaping and shall include, but not be limited to, hedges or other appropriate vegetation that will provide opaque

screening between the northeastern edge of the project site and the residences along the southern side of Parrott Drive. In addition, all proposed landscaping shall be of native, non-invasive species that must also minimize fire hazards and use water-efficient irrigation systems. Areas used for the storage of landscape maintenance or other equipment, supplies, or debris shall be shielded from view by fencing, landscaping or other means. Prior to final approval of the Final Map, a site inspection shall be required by the County Planning Department to verify that all approved landscaping has been implemented or bonds posted for performance; a maintenance bond shall be required. All perimeter landscaping shall serve to screen and/or enhance views of the project site from surrounding roadways and neighborhoods (see also Condition Nos. 8.b. and 8.k.).

8.b. **Mitigation Measure 4.1-1b:** Prior to the issuance of a grading permit "hard card," the applicant is required to submit a tree replacement plan that shall comply with the following specifications:

- For each loss of a significant indigenous tree, there shall be a replacement with three trees, as determined by the Community Development Director, of the same species using at least 5-gallon size stock.

- For each loss of a significant exotic tree, there shall be a replacement with three trees, as determined by the Community Development Director that the substitute tree can survive and flourish in the regional climatic conditions.

- Replacement trees shall require a surety deposit for both performance (installation of tree, staking, and providing an irrigation system) and maintenance. Maintenance shall be required for no less than two and no more than five years as determined by the Community Development Director.

8.c. **Mitigation Measure 4.2-1a:** The applicant shall ensure through the enforcement of contractual obligations that construction contractors implement a fugitive dust abatement program during construction, which shall include the following elements consistent with the Basic Construction Mitigation Measures recommended by the Bay Area Air Quality Management District (BAAQMD):

- Cover all trucks hauling soil, sand, and other loose materials.

- Cover all exposed stockpiles.

- Water all exposed roadway and construction areas two times a day.

- Sweep paved streets three times daily (with water sweepers) if visible soil material is carried onto adjacent streets.

- Limit traffic speeds on unpaved roads to 15 miles per hour (mph).

- After grading is complete, construction of paved surfaces (e.g., roadways, driveways, sidewalks, building pads) should be completed as soon as possible unless protected by seeding, soil binders, or other similar measures.

- Limit idling time to a maximum of five minutes and turn off equipment when not in use; clear signage indicating this shall be displayed at the project site access point.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications and shall be checked by a certified visible emissions evaluator.

- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.

- Any burning of cleared vegetation shall be conducted according to the rules and regulations of the BAAQMD's Regulation 5 (BAAQMD, 2008). Prior notification to BAAQMD shall be made by submitting an Open Burning Prior Notification Form to BAAQMD's office in San Francisco.

- A publicly visible sign shall be posted with the telephone number and person to contact at the County regarding dust complaints. A response and corrective action shall occur within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

8.d. **Mitigation Measure 4.2-1b:** The applicant shall ensure through contractual obligations (to be contained within the Subdivision Improvement Agreement with the Department of Public Works per Condition No. 21) with construction contractors that the following Best Management Practices (BMPs) shall be implemented during all stages of construction:

- All heavy-duty construction equipment shall be equipped with diesel particulate matter filters.

- Only low Reactive Organic Gas (ROG) coatings shall be utilized.

- The applicant shall use only Tier 2 or better heavy-duty construction equipment.

8.e. **Mitigation Measure 4.2-8:** The applicant shall purchase CO2e emissions reduction credits in the amount of 249 MT prior to the start of construction. GHG CO2e emissions reduction credits are generated by projects that reduce their GHG emissions by the use of technology or a reduction in business over business as usual. The CO2e emission reduction credits must be permanently retired by the project applicant, thereby reducing annual emissions for the lifetime of the proposed project.

8.f. **Mitigation Measure 4.3-3a:** Prior to issuance of a grading permit "hard card," a qualified biologist shall conduct a minimum of two protocol level pre-construction surveys for listed bird species during the recommended survey periods for the nesting season that coincides with the commencement of construction activities:

- Northern harrier: Present year-round, breeds March through August;

- Burrowing owl: Present year-round, breeds primarily March through August, but can be February through December; and

- White-tailed kite: Present year-round, breeding occurs in autumn. Nesting season begins in February and ends in August.

These surveys will occur in accordance with the United States Fish and Wildlife Service (USFWS) Division of Migratory Bird Management Guidelines for Raptor Conservation in the United States (2008). The qualified biologist shall conduct surveys within 14 days of commencement of construction activities for northern harrier, burrowing owl, and white-tailed kite in the project site and within 0.25 miles of construction activities where legally permitted. The biologist will use binoculars to visually determine whether nests occur beyond the 0.25-mile survey area if access is denied on adjacent properties. If no active nests are identified on or within 0.25 miles of construction activities within the recommended survey periods, a report summarizing the survey results shall be submitted to the County and the California Department of Fish and Wildlife (CDFW) within 30 days following the survey, and no further mitigation for nesting habitat is required. Evidence, in the form of a letter documenting the results of the survey, shall be submitted to the Current Planning Section prior to the issuance of grading permit "hard card."

8.g. **Mitigation Measure 4.3-3b:** If active listed bird nests are found within 0.25 miles of construction activities, the biologist shall contact the Current Planning Section and CDFW within one day following the pre-construction

survey to report the findings. For purposes of this mitigation requirement, construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site during the identified nesting period. Should an active nest be present within 0.25 miles of construction areas, then CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest/burrow. The monitoring program would require that a qualified biologist shall monitor all activities that occur within the established buffer zone to ensure that disruption of the nest/burrow or forced fledging does not occur. Should the biologist determine that the construction activities are disturbing the nest/burrow, the biologist shall halt construction activities until CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest/burrow site. If the CDFW determines that take may occur, the applicant would be required to obtain a California Endangered Species Act (CESA) take permit. Should the biologist determine that the nest/burrow has not been disturbed during construction activities within the buffer zone, then a report summarizing the survey results will be submitted to the Current Planning Section and CDFW and no further mitigation for nesting habitat is required.

8.h. **Mitigation Measure 4.3-4a:** A qualified biologist shall conduct a pre-construction bird survey for nesting within 14 days prior to commencement of construction activities and prior to the issuance of a grading permit "hard card" if anticipated to commence during the appropriate nesting season (between February 1 and August 31). The qualified biologist shall document and submit the results of the pre-construction survey in a letter to CDFW and the County within 30 days following the survey. The letter shall include: a description of the methodology including dates of field visits, the names of survey personnel, a list of references cited and persons contacted, and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the pre-construction survey, then no further mitigation is required. Evidence, in the form of a report documenting the results of the survey, shall be submitted to the Current Planning Section prior to the issuance of any grading or building permits within the project site.

8.i. **Mitigation Measure 4.3-4b:** If any active nests are identified during the pre-construction survey within the project site, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delimit the buffer zone with

construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of the breeding season or until the young have fledged. Guidance from CDFW will be requested if establishing a 250-foot buffer zone is impractical. Guidance from CDFW will be requested if the nestlings within the active nest appear disturbed.

8.j. **Mitigation Measure 4.3-4c:** Trees anticipated for removal should be removed outside of the nesting season (February 1 and August 31). If trees are anticipated to be removed during the nesting season, a pre-construction survey shall be conducted by a qualified biologist prior to the issuance of a grading permit "hard card." If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey. If active nests are located within trees identified for removal, a 250-foot buffer shall be installed around the tree. Guidance from CDFW will be requested if the 250-foot buffer is infeasible.

8.k. **Mitigation Measure 4.3-6:** Prior to the issuance of a grading permit "hard card" and removal of any trees, a certified arborist or registered professional forester shall conduct an arborist survey documenting all trees with trunk circumferences of 38 inches or greater and their location, as well as any Tree Communities or Indigenous Trees regardless of size. The report shall be submitted to the Current Planning Section. The applicant shall not remove any trees without prior approval from the Community Development Director. All recommendations of the arborist report shall be implemented prior to the issuance of building permits for development on the project site. The arborist report shall specify measures including, but not limited to, the following:

- Trees anticipated for removal shall be removed outside of the nesting season for birds. Taking into account the nesting season for the white-tailed kite, the nesting season shall be defined as February 1 to August 31.

- The project proponent shall plant replacement significant and/or indigenous tree species recommended by the County at a 3:1 ratio within the project site. See also Condition Nos. 8.a. and 8.b.

8.l. **Mitigation Measure 4.4-1a:** Implementation of Condition No. 8.u. (Mitigation Measure 4.6-1 from Section 4.6; Hydrology and Water Quality) to identify and implement erosion control BMPs within the Stormwater Pollution Prevention Plans (SWPPP) (as specified in Condition No. 9), prepared for construction activities in accordance with the State's Clean Water Act National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. Implementation of these BMPs would ensure that temporary and short-term construction-related erosion

impacts under the proposed project would be reduced to a less-than-significant level.

8.m. **Mitigation Measure 4.4-1b:** The applicant shall submit an Erosion and Sediment Control Plan prior to the issuance of a grading permit "hard card" as required in Condition No. 9. This Erosion and Sediment Control Plan shall be prepared by a licensed civil engineer or certified professional soil erosion and sediment control specialist. The plan shall show the location of proposed vegetative erosion control measures, including landscaping and hydroseeding, and the location and details of all proposed drainage systems. The plan shall include sufficient engineering analysis to show that the proposed erosion and sediment control measures during pre-construction, construction, and post-construction are capable of controlling surface runoff and erosion, retaining sediment on the project site, and preventing pollution of runoff in compliance with the Clean Water Act.

8.n. **Mitigation Measure 4.4-2a:** Grading and building designs, including foundation requirements, shall be consistent with the findings of the geotechnical investigation, the California Code of Regulations, and the California Building Code.

8.o. **Mitigation Measure 4.4-2b:** The applicant shall comply with all recommendations contained within the site-specific geotechnical investigation conducted by Michelucci and Associates (2013) (FEIR; Appendix E).

8.p. **Mitigation Measure 4.4-2c:** The applicant shall retain a qualified engineering geologist to ensure all grading and installation of fill is performed under the observation of the qualified engineering geologist.

8.q. **Mitigation Measure 4.4-3a:** Implement Condition No. 8.t. (Mitigation Measure 4.6-2a from Section 4.6; Hydrology and Water Quality) to ensure that the site stormwater drainage system (including individual systems for each residence) shall not allow discharge of uncontrolled runoff onto the site slopes. Concentrated runoff shall not be allowed to flow over graded slopes or areas of thick soil, colluviums, or fill. See Condition No. 12 for additional requirements.

8.r. **Mitigation Measure 4.4-3b:** Implement Condition No. 8.p. (Mitigation Measure 4.4-2c) to ensure the recommendations of the geotechnical investigation regarding sub-drains and surface drainage are included in the project design.

8.s. **Mitigation Measure 4.6-1:** The applicant shall comply with the State Water Resources Control Board (SWRCB) National Pollutant Discharge

Elimination System (NPDES) General Permit for Discharges of Storm-water Runoff Associated with Construction Activity (General Permit). The SWRCB requires that all construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Section 303 of the Clean Water Act. To comply with the NPDES Permit, the applicant will file a Notice of Intent with the SWRCB and prepare a SWPPP prior to construction, which includes a detailed, site-specific listing of the potential sources of storm-water pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills) to include a description of the type and location of erosion and sediment control BMPs to be implemented at the project site; and a BMPs monitoring and maintenance schedule to determine the amount of pollutants leaving the proposed project site. A copy of the SWPPP must be current and remain on the project site. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP shall include, but are not limited to, the following:

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.

- Sediment shall be retained on-site by detention basins, on-site sediment traps, or other appropriate measures.

- A spill prevention and countermeasure plan shall be developed which would identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site. The plan shall also require the proper storage, handling, use, and disposal of petroleum products.

- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.

- Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage

outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.

- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out.

- Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater.

- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.

- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.

- Disturbed areas shall be revegetated after completion of construction activities.

- All necessary permits and approvals shall be obtained.

- Provide sanitary facilities for construction workers.

8.t. **Mitigation Measure 4.6-2a:** Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the Homeowners Association (HOA) or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These requirements apply only to the bioretention treatment system area of the project site and are as follows:

- Maintenance of soils and plantings, including routine pruning, mowing, irrigation, replenishment of mulch, weeding, and fertilizing with a slow-release fertilizer with trace elements.

- Removal of obstructions and trash from bioretention areas.

- Use of only pesticides and fertilizers that are accepted within the integrated pest management approach for use in the bioretention areas.

- Repair of erosion at inflow points.

- Monthly review and inspection of bioretention areas for the following:
  - Obstruction of trash,
  - If ponded water is observed, the surface soils shall be removed and replaced and sub-drain systems inspected, and
  - Condition of grasses.
- Distribution of the following:
  - A copy of the stormwater management plans shall be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system, and
  - Material presented in the integrated pest management program will be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system.

8.u. **Mitigation Measure 4.6-2b:** Prior to recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These requirements apply to all common areas of the project site and are as follows:

- Drainage inlets shall be inspected monthly and kept clean of any trash that may have accumulated. It is the responsibility of the property manager/owner to have those inspections performed, documented, and any repairs made.
- Landscape areas shall be covered with plants or some type of ground cover to minimize erosion. No areas are to be left as bare dirt that could erode. Mounding slopes shall not exceed two horizontal to one vertical.
- Pesticides and fertilizers shall be stored as hazardous materials and in appropriate packaging; over spraying onto paved areas shall be avoided when applying fertilizers and pesticides. Pesticides and fertilizers shall be prohibited from being stored outside.

- Landscape areas shall be inspected and all trash picked up and obstruction to the drainage flow removed on a monthly basis minimum. The project site shall be designed with efficient irrigation and drainage to reduce pesticide use. Plants shall be selected based on size and situation to reduce maintenance and routine pruning.

- Integrated pest management information shall be provided to the building management.

8.v. **Mitigation Measure 4.6-2c:** Infiltration systems shall be designed in accordance with the following procedures outlined in the California Stormwater Best Management Practice Handbooks to reduce runoff and restore natural flows to groundwater:

- Biofilters and/or vegetative swale drainage systems will be installed at roof downspouts for all buildings on the project site, allowing sediments and particulates to filter and degrade biologically.

- Structural source controls, such as covers, impermeable surfaces, secondary containment facilities, runoff diversion berms, sediment, and grease traps in parking areas will be installed.

- Designated trash storage areas will be covered to protect bins from rainfall.

8.w. **Mitigation Measure 4.6-3a:** Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete and provide the documentation of annual inspection and cleaning of each of the 19 individual lot storm drainage systems. The inspection shall be performed during the dry season and shall include removal of all trash and obstructions from area drains, cleanouts, and catch basins.

8.x. **Mitigation Measure 4.6-3b:** The 15-inch diameter stormwater drain pipe flowing at 2 percent that crosses Ascension Drive at Enchanted Way shall be replaced with a 21-inch diameter pipe. The 30-inch diameter storm-water drain pipe flowing at 1.3 percent shall be replaced with a 36-inch diameter pipe sloped at 2 percent. Stormwater drain pipe infrastructure improvements shall adhere to all applicable regulations and ordinances.

8.y. **Mitigation Measure 4.7-1:** The project applicant shall ensure through the enforcement of contractual obligations that all contractors transport, store, and handle construction-required hazardous materials in a manner

consistent with relevant regulations and guidelines, including those recommended and enforced by the San Mateo County Planning and Building Department, Office of Environmental Health Services Division, and Office of Emergency Services. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using approved protocols.

8.z. **Mitigation Measure 4.7-2:** The applicant shall be required through contractual obligations that the construction contractor(s) mark(s) the areas planned to be disturbed in white paint and notify Underground Service Alert (USA) one week prior to the beginning of excavation activities. This will be completed so that the entire construction area is properly surveyed in order to minimize the risk of exposing or damaging underground utilities. USA provides a free "Dig Alert" service to all excavators (contractors, homeowners and others), in northern California, and will automatically notify all USA Members (utility service providers) who may have underground facilities at their work site. In response, the USA Members will mark or stake the horizontal path of their underground facilities, provide information about, or give clearance to dig. This service protects excavators from personal injury and underground facilities from being damaged. The utility companies will be responsible for the timely removal or protection of any existing utility facilities located within construction areas.

8.a.a. **Mitigation Measure 4.7-3a:** The applicant shall ensure through the enforcement of contractual obligations to be contained within the Subdivision Improvement Agreement (Condition No. 21) that the following measures are implemented by contractors during project construction:

- Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.

- Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

8.a.b. **Mitigation Measure 4.7-3b:** The building plans of the proposed project shall be reviewed by a representative from County Fire/Cal-Fire to ensure that regulations in the County's Fire Ordinance are met and the project complies with County Fire/Cal-Fire requirements. The development of the proposed project shall be in compliance with Chapter 15 of the County

General Plan with respect to residential uses adjacent to open space areas where wildfire is a threat, as well as Cal-Fire requirements (Condition No. 49).

8.a.c. **Mitigation Measure 4.8-1:** The project applicant shall ensure through contractual agreements to be contained within the Subdivision Improvement Agreement (Condition No. 21) that the following measures are implemented during construction:

- Construction activities shall be limited to occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activities shall not occur on Sundays, Thanksgiving, or Christmas. The intent of this measure is to prevent construction activities during the more sensitive time period and minimize the potential for effects.

- Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors.

- All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations.

- Construction activities shall conform to the following standards: (a) there shall be no start-up of machines or equipment, no delivery of materials or equipment, no cleaning of machines or equipment and no servicing of equipment except during the permitted hours of construction; (b) radios played at high volume, loud talking and other forms of communication constituting a nuisance shall not be permitted.

- The general contractors for all construction activities shall provide a contact number for citizen complaints and a methodology for dealing with such complaints such as designating a noise disturbance coordinator. This noise disturbance coordinator shall receive all public complaints about construction-related noise and vibration, shall be responsible for determining the cause of the complaint, and shall implement any feasible measures to be taken to alleviate the problem. All complaints and resolution of complaints shall be reported to the County weekly.

8.a.d. **Mitigation Measure 4.10-2a:** Residents of the proposed project shall comply with all requirements of Cal Water's Water Shortage Contingency Plan as mandated by Cal Water and BSD. These requirements may

include, but are not limited to the following that shall be contained within an HOA agreement:

- Voluntarily reduce water consumption at single-family residences;
- Adhere to the minimum allocation given to single-family residential customers or pay penalty rate applied to service bill for use that is in excess of costumer's allocation; and/or
- Comply with orders prohibiting the use of water for specific activities, such as a prohibition of potable water use for landscape irrigation.

8.a.e. **Mitigation Measure 4.10-2b:** Pumping facilities shall be installed at the existing water tank owned by Cal Water to provide adequate water pressure for residential and fire protection uses. Cal Water shall be contacted to review pumping facilities design and ensure compliance with applicable standards. The project applicant shall be responsible for covering the cost of the development of these facilities prior to the recordation of the final subdivision map.

8.a.f. **Mitigation Measure 4.10-2c:** Two existing water mains shall be relocated such that they are within the right-of-way of the proposed private street or at the property boundary so as to allow ease of maintenance of the water mains. Prior to the issuance of a grading permit "hard card," a new Cal Water easement shall be established that meets with the approval of Cal Water to the project site to replace the existing Cal Water easements. The two water mains include an 8-inch diameter water main connecting the water tank to the water main located on Parrott Drive and a 10-inch diameter water main connecting the water tank to the water main located on Bel Aire Drive.

8.a.g. **Mitigation Measure 4.10-3:** The applicant shall offset the increase in sewer flow generated by the proposed project by reducing the amount of existing Inflow and Infiltration (I&I) into the CSCSD sewer system. The offset amount shall achieve a zero-net increase in flow during wet weather events with implementation of the proposed project. This shall be achieved through the construction of improvements to impacted areas of the sewer system, with construction plans subject to CSCSD approval and required to be in compliance with applicable regulatory requirements. Construction of improvements, as approved by the CSCSD, shall be completed prior to the recordation of the final subdivision map.

8.a.h. **Mitigation Measure 4.10-5:** The applicant shall ensure that fire sprinklers with appropriate flow rates are installed for all structures that would be developed as a part of the proposed project, per County Fire/Cal-Fire's alternate materials and methods request.

8.a.i. **Mitigation Measure 4.11-3:** Either provide street lighting on the private streets to a level of 0.4 minimum maintained average foot-candles with a uniformity ratio of 6:1, average to minimum or ensure street lighting is consistent with safety standards of the County-governed Bel Aire Lighting District.

8.a.j. **Mitigation Measure 4.11-4:** Within the corner sight triangles at the new street intersection, there shall be no walls, fencing, or signs that would obstruct visibility. Trees shall be planted so as to not create a "wall" effect when viewed at a shallow angle. The type of shrubbery planted within the triangles shall be such that it will grow no higher than 3 feet above the adjacent roadway surface. Trees planted within the sight triangle areas shall be large enough that the lowest limbs are at least 7 feet above the surface of the adjacent roadway. Street parking shall be prohibited within the bounds of the sight triangle, as well as within the fire hammerhead turnarounds.

Grading Permit Conditions

9. The applicant is required to comply with the County's Drainage Policy and the approved Erosion and Sediment Control Plan. A final Erosion and Sediment Control Plan is required at the building permit stage and should contain all measures of the approved Erosion and Sediment Control Plan and measures required by project mitigation measures.

10. No grading shall be allowed during the winter season (October 1 to April 30) to avoid potential soil erosion, unless approved, in writing, by the Community Development Director. The property owner(s) shall submit a letter to the Current Planning Section, at least two weeks prior to commencement of grading, stating the date when grading will begin, and its anticipated duration.

11. The property owner(s) shall file a Notice of Intent (NOI) with the State Water Resources Board to obtain coverage under the State General Construction Activity NPDES Permit. A copy of the project's NOI and Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to the Current Planning Section, prior to the issuance of any grading permit "hard card."

12. Prior to the issuance of the grading permit "hard card," the property owner(s) shall schedule an erosion control inspection by the Current Planning Section staff to demonstrate that the approved erosion control plan has been implemented. The property owner(s) is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into local drainage systems and water bodies by adhering to the San Mateo Countywide Water Pollution Prevention Program's (SMCWPPP) "General Construction and Site Supervision Guidelines," including:

a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of fiber rolls or coir netting, and passive measures, such as minimizing vegetation removal and revegetating disturbed areas with vegetation that is compatible with the surrounding environment.

b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

f. Delineating with field markers clearing limits, setbacks, and drainage courses. Prior to issuance of a grading permit “hard card” for either property, the property owner(s) shall install accurate and visible markers (at a minimum height of 4 feet), to the satisfaction of the County Department of Parks, delineating all sides of the shared property line between the subject parcels and County property.

g. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

h. Performing clearing and earth-moving activities only during dry weather.

i. Limiting construction access routes and stabilizing designated access points.

j. Avoid tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

k. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

l. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

m. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

13. While the property owner(s) must adhere to the final approved Erosion and Sediment Control Plan (per Condition No. 9) during grading and construction, it is the responsibility of the civil engineer and/or construction manager to implement the Best Management Practices (BMPs) that are best suited for each project site. If site conditions require additional measures in order to comply with the SMCWPPP and prevent erosion and sediment discharges, said measures shall be installed immediately under the direction of the project engineer. If additional measures are necessary in the reasonable judgment of the San Mateo County Community Development Director and the Director of Public Works, the erosion and sediment control plan shall be updated to reflect those changes and shall be resubmitted to the Planning and Building Department for review. The County reserves the right to require additional (and/or different) erosion and sediment control measures during grading and/or construction if the approved plan proves to be inadequate for the unique characteristics of each job site.

14. Prior to the issuance of a grading permit “hard card,” the property owner(s) shall submit a schedule of grading operations, subject to review and approval by the Department of Public Works and the Current Planning Section. The submitted schedule shall include a schedule for, and details of, the off-site haul operations, including, but not limited to: gravel import site(s), size of trucks, haul route(s), time and frequency of haul trips, dust and debris control measures and traffic and safety control measures, including flagging personnel. The submitted schedule shall represent the work in detail and project grading operations through to the completion of grading activities and stabilization of all disturbed areas of the site(s). As part of the review of the submitted schedule, the County may place such restrictions on the hauling operation, as it deems necessary. During periods of active grading, the property owner(s) shall submit monthly updates of the schedule to the Department of Public Works and the Current Planning Section.

15. The provision of the San Mateo County Grading Regulations shall govern all grading on and adjacent to the project sites. Per San Mateo County Ordinance Code Section 8605.5, all equipment used in the grading operations shall meet spark arrester and firefighting tool requirements, as specified in the California Public Resources Code, and utilization of flagging personnel is mandatory throughout all stages of grading.

16. Upon the start of grading activities and through to the completion of the project, the property owner(s) shall be responsible for ensuring that the following dust control guidelines are implemented:

    a. All graded surfaces and materials, whether filled, excavated, transported or stockpiled, shall be wetted, protected or contained in such a manner as to prevent any significant nuisance from dust, or spillage upon adjoining water body, property, or streets. Equipment and materials on the site shall be used in such a manner as to avoid excessive dust. A dust control plan may be required at any time during the course of the project.

    b. A dust palliative shall be applied to the site when required by the County. The type and rate of application shall be recommended by the soils engineer and approved by the Department of Public Works, the Planning and Building Department's Geotechnical Section, and the Regional Water Quality Control Board.

17. Final approval of all grading permits is required. For final approval of the grading permits, the property owner(s) shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project sites:

    a. The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Section.

    b. The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and the Current Planning Section.

<u>Public Access/Design/Landscaping</u>

18.a. Prior to recordation of the final map, the applicant will be required to submit the Covenants, Conditions and Restrictions (CC&Rs) (deed restriction) intended to be recorded to the Current Planning Section and County Counsel for review and approval prior to recordation. The CC&Rs shall include the following items:

    a. The subdivision shall not be gated or restrict access in any way to the general public in order to provide public access and use of the sidewalks and proposed trail system and overlook areas from sunrise to sunset in accordance with County Park Department standards.

    b. Dwellings constructed within the subdivision shall incorporate a maximum 28-foot height profile that is measured perpendicularly to the finished grade,

and allows for architectural projections such as chimneys, dormers or gables.

c. Dwelling designs shall incorporate styles presented as part of the "Ascension Heights Design Handbook" proposed by the applicant and presented to the Planning Commission on October 14, 2015 and included as Appendix J to the Final EIR. Landscaping shall adhere to the Water Efficient Landscape Ordinance.

d. No structural development (other than drainage improvements) shall occur within the rear 20 feet of Lots 1 through 7 (lots that back along Parrott Drive lots).

18.b. The applicant shall record documents which address future maintenance responsibilities for the screening trees along the rear of the Parrott Drive lots, pedestrian trail/overlook, and all landscaping in common areas to be installed per the approved landscape plan (see also Condition 8.a.).

Cultural Resources

19. The property owner(s) and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains which the property owner(s) shall comply with.

Noise

20. The property owner(s) shall comply with the County's Noise Ordinance limiting construction and grading activities during the hours between 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 5:00 p.m. on Saturdays, and prohibiting construction on Sundays, Thanksgiving and Christmas.

Department of Public Works

21. Prior to recordation of the final map, the applicant will be required to submit to the Department of Public Works a complete set of improvement plans including all provisions for roadways, driveway, utilities, storm drainage, and stormwater treatment, all in accordance with the County Subdivision Regulations, County Standard Details, County Drainage Policy and NPDES Permit. Improvement

plans must be accompanied by a plan review deposit in the amount of $1,000.00 made payable to the County of San Mateo Department of Public Works.

22. Upon the Department of Public Works' approval of the improvement plans, the applicant will be required to execute a Subdivision Improvement Agreement and post securities with the Department of Public Works as follows:

    a. Faithful Performance – 100 percent of the estimated cost of constructing the improvements.

    b. Labor and Materials – 50 percent of the estimated cost of constructing the improvements.

23. The applicant shall prepare a plan indicating the proposed method of sewering these properties. This plan should be included on the improvement plans and submitted to the Department of Public Works for review. Upon completion of this review, the applicant or his engineer shall have these approved plans signed by the Crystal Springs County Sanitary District.

24. Any potable water system work required by the appropriate district within the County right-of-way shall not be commenced until County requirements for the issuance of an encroachment permit have been met. Plans for such work shall be reviewed by the Department of Public Works prior to the issuance of the permit.

25. The applicant shall submit a driveway "plan and profile" to the Department of Public Works, showing the driveway access to each parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20 percent) and to County Standards for driveways (at property line) being the same elevation as the center of the access roadway. When appropriate, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

26. The applicant shall have designed (by a registered civil engineer) and the applicant shall construct an on-site private street to serve the proposed lots of this subdivision. This street shall be designed and constructed to no less than the standards for an "Urban Private Street." The street shall be posted for no parking and it shall terminate in a turnaround meeting the requirements of the applicable fire jurisdiction and the San Mateo County Department of Public Works.

27. The applicant shall have prepared (by a registered civil engineer) a drainage analysis of the proposed subdivision and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property being subdivided shall be detailed on the plan and shall include adjacent

lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the street improvement plans and submitted to the Department of Public Works for review and approval.

Any upgrades to the existing stormwater system, as required by this project, shall be completed by the owner prior to the recordation of the subdivision map.

28. The applicant shall submit a permanent stormwater management plan in compliance with the County's Drainage Policy and NPDES requirements for review and approval by the Department of Public Works.

29. The applicant shall record documents which address future maintenance responsibilities of any private drainage and/or roadway facilities which may be constructed. Prior to recording these documents, they shall be submitted to the Department of Public Works for review.

30. The property owner shall dedicate sanitary sewer easements for any portion of the sewer main which lies outside of existing public sanitary sewer easements, if applicable.

31. The applicant shall submit to the project planner (for recordation) legal descriptions of the reconfigured parcels. The project planner will review these descriptions and forward them to Public Works for approval.

32. Prior to recordation, the applicant shall submit written certification from the appropriate energy and communication utilities, sewer district, and water district to the Department of Public Works and the Planning Department stating that they will provide services to the proposed parcels of this subdivision.

33. The applicant shall submit a subdivision map to the Department of Public Works – County Surveyor for review and recordation.

34. The provisions of the San Mateo County Grading Ordinance shall govern all grading on and adjacent to this site. At the completion of work, the engineer who prepared the approved grading plan shall certify, in writing, that all grading, lot drainage, and drainage facilities have been completed in conformance with the approved plans, as conditioned, and the Grading Ordinance.

35. Prior to the issuance of the grading permit, the applicant shall submit, to the Department of Public Works for review and approval, a plan for any off-site hauling operations. This plan shall include, but not be limited to, the following information: size of trucks, haul route, disposal site, dust and debris control measures, and time and frequency of haul trips. As part of the review of the

submitted plan, the County may place such restrictions on the hauling operation, as it deems necessary.

36. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued.

37. Prior to the issuance of future building permits, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed buildings per Ordinance No. 3277.
38. "As-Built" plans of all construction required by these conditions shall be prepared and signed by the subdivider's engineer upon completion of all work. The "As-Built" plans shall be accompanied by a written certification from the engineer that all private facilities have been completed in conformance with the approved plans.

39. It shall be the responsibility of the applicant's engineer to regularly inspect the erosion control measures and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected.

Building Inspection Section

40. Building permits shall be applied for and obtained from the Building Inspection Section for any future construction on any of the 19 created parcels indicated for development after filing the final subdivision map, and adhere to the current adopted Green Building codes.

Cal-Fire

41. An Alternate Methods or Materials Request has been approved by the Fire Marshal for this project. A modified 13D system will be required as follows: three-head calculations for the three most hydraulically demanding heads without regard to partitions; bathrooms, closets and pantries will have fire sprinkler coverage; all attic access shall have on-head coverage; a remote inspector's test; an exterior alarm bell and an interior alarm. This condition shall be met at the building permit phase of the project.

42. No combustibles shall be on-site prior to the required fire protection water supply and fire department access provided.

43. The following fire flow will be required depending upon the total floor space square footage of the largest structure: Up to 3,600 sq. ft., 1,000 gpm; 3,601 to 4,800 sq. ft., 1,750 gpm; 4,801 to 6,200 sq. ft., 2,000 gpm. This fire flow shall be available for a minimum of 2 hours and at 20-psi residual operating pressure.

44. The required fire flow shall be available from a County Standard 6-inch Wet Barrel Fire Hydrant; the configuration of the hydrant shall have a minimum of one each 4 1/2-inch outlet and one each 2 1/2-inch outlet located not more than 200 feet from the building, measured by way of approved drivable access to the project site.

45. When receiving water service for fire protection (hydrants, fire sprinkler systems) from a public or municipal water purveyor, written certification from the water company that hydrants will be installed or that the existing water system is capable of meeting the project conditions is required to be presented to the San Mateo County Fire Department for verification to show that the required upgrades to the system will be installed and that existing fire flows will meet the project requirements.

46. Fire Department access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be 20 feet wide, all weather surface, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 feet is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly maintained road to the property. Grades over 16 percent shall be approved by the Fire Marshal. Gravel road access shall be certified by an engineer as to the compaction and weight it will support.

47. All roof assemblies in Very High Fire Hazard Severity Zones shall have a minimum CLASS-A fire resistive rating and be installed in accordance with the manufacturer's specifications and current California Building and Fire Codes.

48. All dead-end roadways shall be terminated by a turnaround bulb of not less than 96 feet in diameter. Alternates such as a hammerhead T may be approved by the Fire Marshal.

49. All new public water systems, extensions from a public water system or replacement of any main or line of an existing public water system shall have a minimum diameter of 6 inches. If the pipes are not linked in grid or if individual legs are over 600 feet in length, then the minimum diameter shall be 8 inches.

50. This project is located in a wildland urban interface area. Roofing, attic ventilation, exterior walls, windows, exterior doors, decking, floors, and underfloor protection shall meet CRC R327 or CBC Chapter 7A requirements. You can visit the Office of the State Marshal's website at http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland.php and click the new products link to view the "WUI Products Handbook." This condition shall be met at the building permit phase of the project.

51. Prior to issuance of a grading permit hard card by the Planning and Building Department, the applicant shall file a plan to correct the existing surface erosion conditions on the subject site (Erosion Correction Plan). The Erosion Correction Plan shall include provisions for the removal or correction of the failed drainage facilities at the southwest corner of the site. The Erosion Correction Plan will be subject to review and approval by the Community Development Director and the Director of Public Works. The applicant shall also post a security in an amount determined by the Community Development Director and/or the Director of Public Works to be sufficient to ensure the faithful performance of the Erosion Correction Plan, pursuant to Section 8604.11 of the San Mateo County Ordinance Code.

County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **B**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-1

LINE TABLE		
LINE	LENGTH	BEARING
L1	21.50	N25°42'00"E
L4	27.50	S64°18'00"E
L5	27.50	S64°18'00"E
L6	21.50	N25°42'00"E
L11	8.33	S64°18'00"E
L12	18.50	N25°42'00"E
L13	27.50	S64°18'00"E
L14	27.50	N64°18'00"W
L15	23.50	S25°42'00"W
L16	42.00	S25°42'00"W
L17	18.50	N24°30'49"E
L18	18.50	N24°30'49"E
L19	42.00	S25°42'00"W

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	124.57	85.00	83°58'16"
C2	21.99	14.00	90°00'00"
C3	21.99	14.00	90°00'00"
C4	39.27	25.00	90°00'00"
C5	39.27	25.00	90°00'00"
C6	26.70	17.00	90°00'00"
C7	26.70	17.00	90°00'00"
C8	33.54	75.00	25°37'15"
C9	39.53	75.00	30°11'47"
C11	51.59	35.00	84°27'30"

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-1**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-2

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-2**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-3

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-3**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-4

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-4**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-5

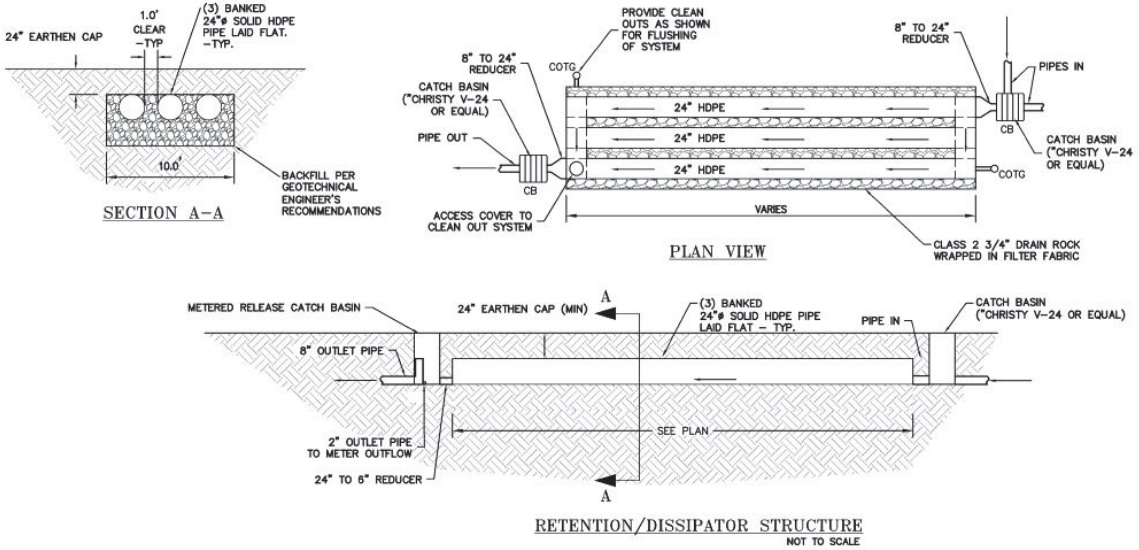
San Mateo County Board of Supervisors Meeting

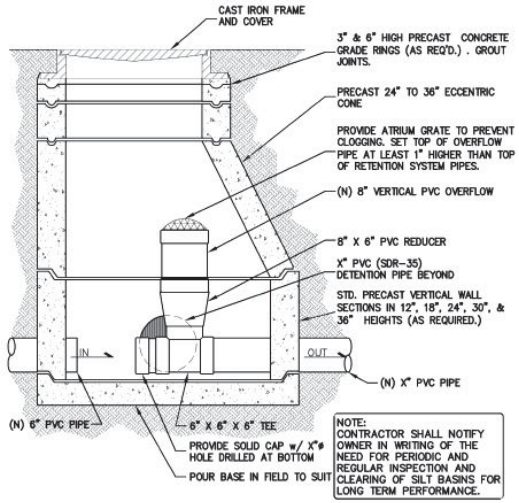
Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-5**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-6





METERED RELEASE OUTLET
NOT TO SCALE

County of San Mateo - Planning and Building Department

ATTACHMENT C-7

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-7**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-8

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-8**

File Numbers: **PLN2002-00517**

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **C-8**

File Numbers: **PLN2002-00517**

County of San Mateo - Planning and Building Department

ATTACHMENT C-9

ATTACHMENT C-9

ASCENSION HEIGHTS

Design Handbook

July 29, 2015

Design Guidelines

Architectural Styles

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513
925.634.7000
www.straussdesign.com

SDG Architects, Inc.

General Requirements

The following section describes general architectural requirements for the Ascension Heights community. These requirements are encouraged to maintain the overall vision for Ascension Heights. Certain items must be done to comply with restrictions established by the County of San Mateo. It is the responsibility of the homeowner to verify all local jurisdiction requirements. The general requirements are as follows:

Massing:
Regardless of the configuration, home designs shall incorporate stepped building forms to complement the adjacent hillside topography. Using this approach and following required height restrictions (see pages 5-6 ((“Height Standard”)) two-story massing will be minimized, one-story massing will predominate, buildings will appear more understated and the landscape will be more appreciated.

Except for the roof structures, all major building mass components should have a rectangular or square plan. Minor building mass components, such as bay window projections or singular tower elements, may have an octagonal or a round plan. However, all exterior corners in plan should predominantly be 90 degrees.

Building mass components should be combined to create simple, additive compositions. This approach should be used to minimize the appearance of larger homes. For example, second floor massing should be setback from the main level.

To promote indoor-outdoor living and to maximize access to light and ventilation, porches, balconies, loggia courtyards and breezeways are all encouraged.

Detached and semi-detached structures are also encouraged to reduce the appearance of overall building mass. This rural approach to assembling building masses is consistent with the Ascension Heights vision.

To encourage a diversity of built forms throughout the community, special attention should be given to the front/street and rear/hillside elevations. Streetscape and hillscape building profiles should vary from lot to lot. To further this ideal, homeowners are encouraged to utilize a variety of projections to personalize their home elevations such as: balconies, porches, trellis, chimneys, dormers, and bay windows.

Height Requirements:
Overall building height cannot exceed 36' measured from average finish grade to the average height between the highest horizontal plan and the highest point on the roof per County of San Mateo Municipal Code for the R1-S-8 District. In addition, there is a 28' height profile restriction. This profile measurement is to be taken from, and follow the profile of, the adjacent finish grade along the perimeter of the building. Refer to page 5 ("Height Standard").

Maximum Allowable Square Footage:
Maximum Allowable Square Footage is the area described as the footprint of any structure greater than 18" above finish grade and is limited to a maximum of 40% of the lot.

Setback Requirements:
Setback requirements shall are described in the San Mateo County Development Standards for zoning designation R-1-S-8 District. They are as follow:

Front (ft.)	20
Side (ft.)	5
Rear (ft.)	20

Garages:
Garage doors should complement a regional style and be either wood or wood clad doors. Sectional garage doors must be the types that appear to be a single, or pair of, panel doors.

Roof:
Roof designs should complement the adjacent hillside topography. For this reason, roofs should be predominantly low-profile and pitched. Roof pitch should not exceed 8:12. The only exception shall be for architectural features such as tower elements, dormers and for roofs in the "Cottage" and "American Farmhouse" architectural styles (refer to pages 7-22). To emphasize the low-profile roof pitch and to reduce solar heat gain, roof overhangs should be considered.

Roof designs should consist of intersecting pitched gables, hips, or shed roof forms. Dome and flat roofs are not allowed. Roof designs should be simple, not overly complex. Roof crickets should be minimal or as needed for chimney roof penetrations.

Skylights:
The County of San Mateo may approve skylights with the following requirements:

- Skylights must be equipped with motorized shades. These shades must have a photocell timer/switch to close the shade, automatically, at night.
- Skylights must be installed to be low-profile .
- Skylights must not exceed 30" in width or length and must be rectangular or square.
- Skylight glazing must be flat glass, not mirror reflective and should be a minimum of 70% clear.
- Skylight frames should be of a color to match adjacent roof or flashing material. Domed or "bubble" skylights are not allowed.

Solar and Wind Powered Systems:
Solar photovoltaic (PV) panel systems and solar water heating systems, not visible from the street, may be allowed. Wind powered systems are not allowed. All PV panel installations should be the integrated-flush panel type and cannot be installed within a barrel tile roof.

Mechanical Equipment and Antennae:
Mechanical equipment cannot be installed on a roof, with the exception of those solar systems noted above. Antennae or satellite dishes must be installed so they are not visible to adjacent neighbors or from the street.

Chimneys:
All chimney spark arrestors must be screened with a decorative chimney cap.

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513
925.634.7000
www.straussdesign.com
SDG Architects, Inc.

Materials:
The homeowner is encouraged to use natural and sustainable materials whenever possible. If stone or brick is introduced onto the exterior facade, it shall be a natural material, not cultured. The homeowner is also encouraged to specify roof, flashing, gutter, downspout and chimney cap materials as defined for each of the suggested architectural styles (refer to pages 7-22).

Colors:
Building material colors shall be as defined as follow:

"Exterior colors shall be selected to harmonize with the overall hillside and neighborhood landscape setting. The larger scale color palette for homes within specific residential parcels shall be complementary. Bright colors or high sheen finishes shall be avoided. Generally, the color palette for major wall surfaces shall be responsive to the natural colors of the materials being used. Where wood is used, colors shall include tans, browns, taupes and natural weathered colors including the warm greys. Wood colors may also occur in a variety of other tones provided they are applied as a stain and are muted in tone. Stucco or plaster colors shall include, beige and earth tones such as tan, rust, ochre, sienna, umber or brown. Accent and contrasting colors may be used sparingly for fenestration, trim and other special architectural details to add interest and variety."

The imagery presented in this design handbook of styles, color, and details do not represent exactly what is allowed.

Sustainable Architecture:
As noted in the vision statement, homeowners are encouraged to design using sustainable architectural principles. These principles encourage: (1.) conservation of natural resources, (2.) conservation of energy, (3.) conservation and protection of water supplies, (4.) improvement of air quality and (5.) more livable communities. Opportunities to exercise these principles are highlighted throughout this document using green text.

Traditional Interpretation:
Homeowners are encouraged to design their homes within a general framework of historic, regional architectural styles. Examples of these styles are described on pages 7-22. Through the interpretation of these styles, our hope is that the community will develop along similar aesthetic principles while maintaining the Ascension Heights vision.

There are five groups of architectural styles proposed for homeowner consideration: Arts and Crafts, Cottage, Adobe Ranch, American Farmhouse, and Prairie School. The following pages describe these five groups and the various styles within each.

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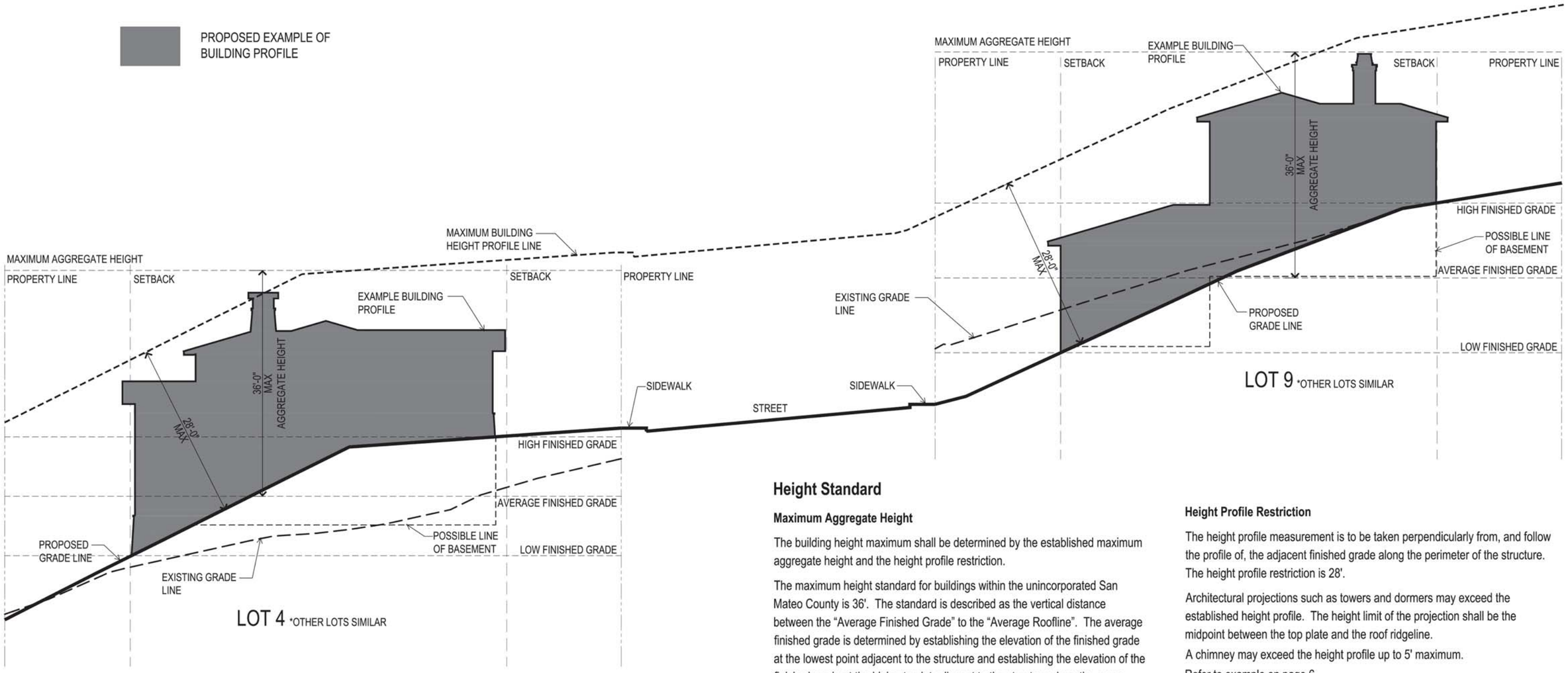
925.634.7000
www.straussdesign.com
SDG Architects, Inc.



Height Standard

Maximum Aggregate Height

The building height maximum shall be determined by the established maximum aggregate height and the height profile restriction.

The maximum height standard for buildings within the unincorporated San Mateo County is 36'. The standard is described as the vertical distance between the “Average Finished Grade” to the “Average Roofline”. The average finished grade is determined by establishing the elevation of the finished grade at the lowest point adjacent to the structure and establishing the elevation of the finished grade at the highest point adjacent to the structure along the same section then averaging the elevation between the two points. This will establish the “Average Finished Grade”.

The average roofline is determined by establishing the elevation of the highest horizontal plate and the elevation of the highest point on the roof along the same section then averaging the elevation between the two planes. This will establish the “Average Roofline”.

The vertical distance between the “Average Finished Grade” and the “Average Roofline” cannot exceed 36'.

Height Profile Restriction

The height profile measurement is to be taken perpendicularly from, and follow the profile of, the adjacent finished grade along the perimeter of the structure. The height profile restriction is 28'.

Architectural projections such as towers and dormers may exceed the established height profile. The height limit of the projection shall be the midpoint between the top plate and the roof ridgeline.

A chimney may exceed the height profile up to 5' maximum.

Refer to example on page 6.

Height verification, per County of San Mateo procedures, is required for all structures designed within 2' of the maximum height profile limit.

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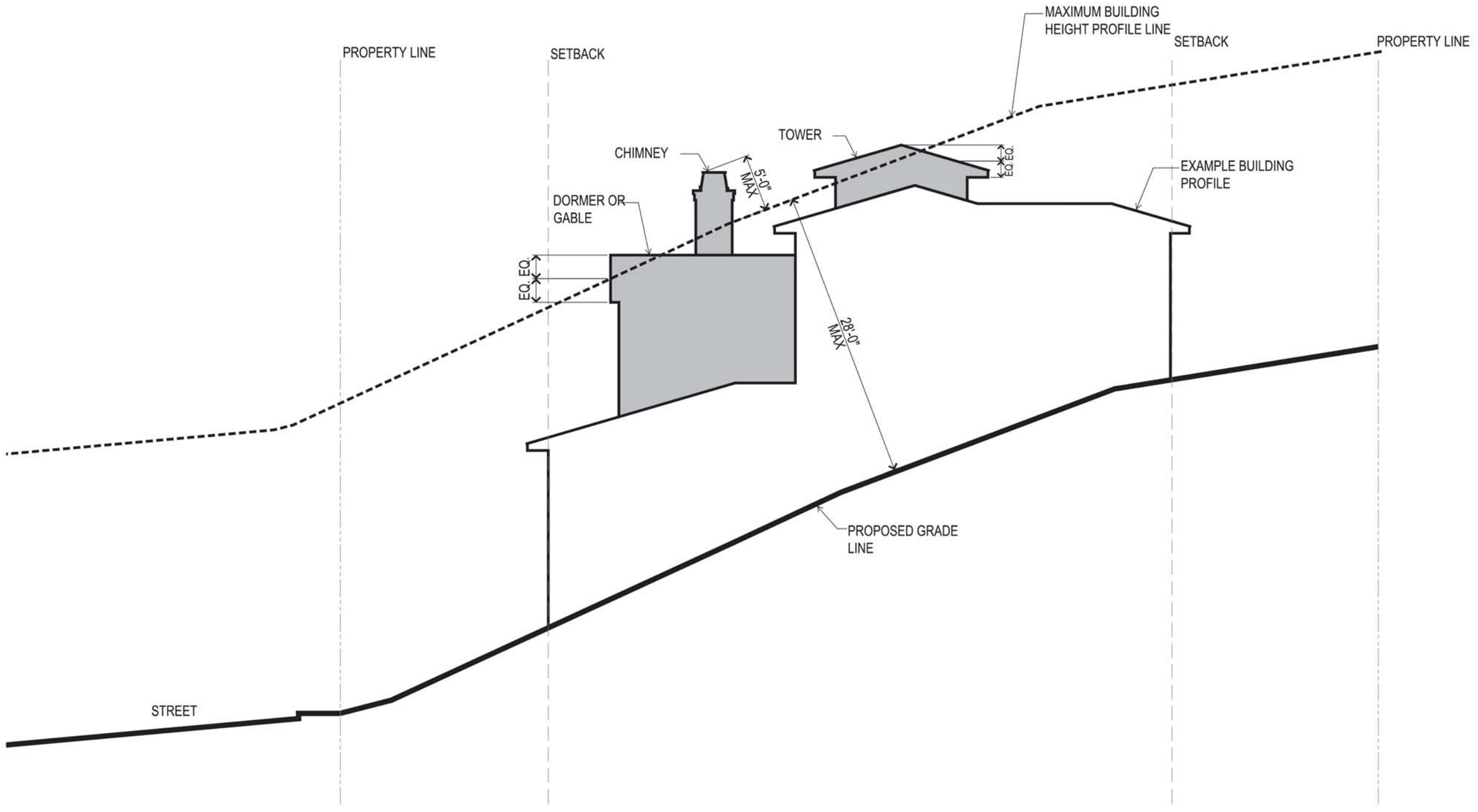

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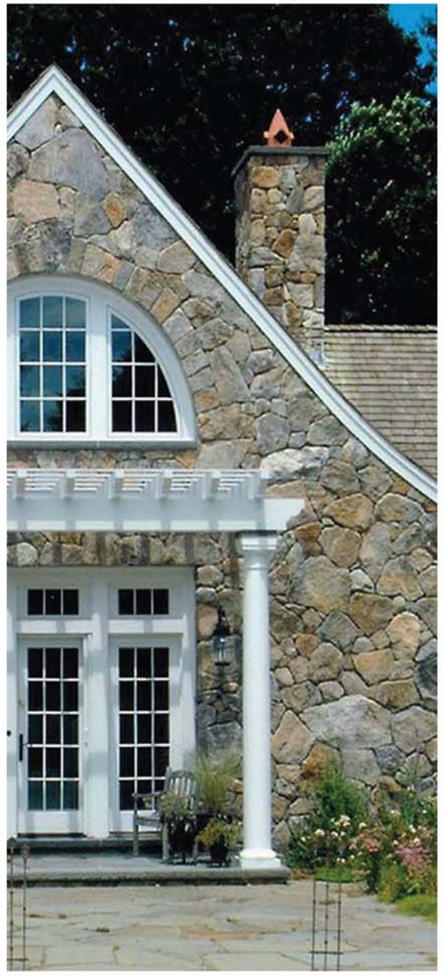
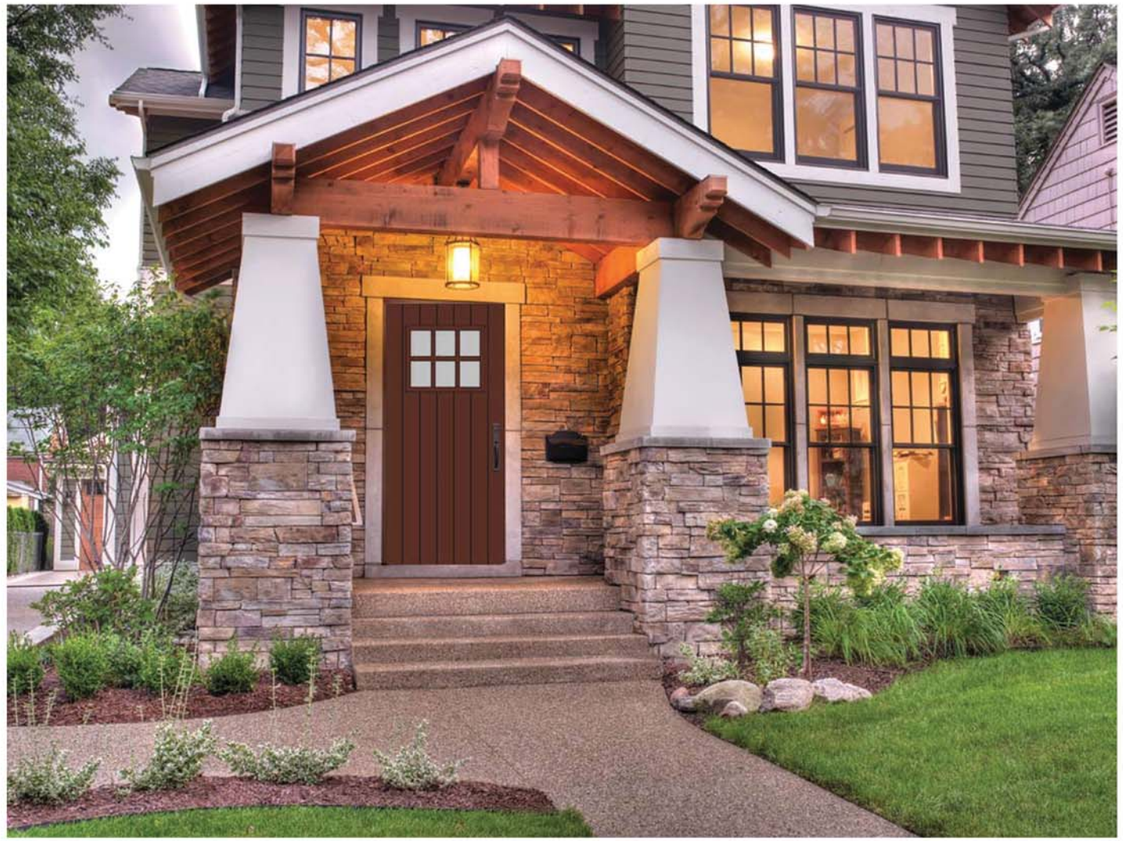



Architecture Styles

The selected architectural styles and their related building forms and details are a product of cultural tastes and values that reflect the vision of Ascension Heights .
The goal is to have a cohesive string of distinct architectural influences while enhancing the natural landscape of San Mateo.
In order to adhere to the principles set by Ascension Heights the styles have been chosen due to their identifying characteristics, indicative detailing and low profile massing. The five styles are: **Arts and Crafts, Cottage, Adobe Ranch, American Farmhouse and Prairie School.**



Arts and Crafts

Arts and Crafts is defined by architecture with an old-world charm and quality that honor the artisans and craftsmen that developed it as a style back in the 1800s. Also known as the Craftsman style, it maintains the tradition of creative detailing and simple understated forms. It has been enhanced by the works of architects such as Bernard Maybeck, Gustav Stickley, Charles and Henry Greene Brothers. As part of the Arts and Crafts movement, Craftsman homes often promote indoor-outdoor living and are best demonstrated with low-profile roofs with deep overhangs, heavy timber detailing, shingle roof and various types of wall treatments such as wood siding, plaster, or painted wood shingle or clapboard siding. Porches, decks, arbors, and trellises are often used to complement the primary building massing.

In addition to the General Requirements, the following specific requirements should be considered when designing in this particular style:

Massing: Except for featured mass components (i.e. bay windows, towers) and the roof, building mass components should either be rectangular or square. Featured mass components may be rectangular, square or octagonal. Additive massing composition is encouraged to reduce the perceived size of the building.

Roof Pitch: Roof pitches shall be low profile and not exceed 3.5:12. Short roof spans are also encouraged to reduce the perceived size of the building.

Roof Materials: Roof material shall be Class "A" fire-rated, fire-resistant wood shake roofing. Synthetic wood shake may be acceptable.

Chimney Materials: Chimney walls should be brick or stone. All chimneys must have a decorative chimney cap in a design that complements the style of the home.




Exterior Wall Materials: The wall material should be varied between painted wood shingle, clapboard siding or hand-troweled exterior plaster ("stucco"). The primary wall material chosen should cover all exterior wall surfaces with the exception of trim, basement level and/or understory walls and freestanding and/or enclosure walls. When used, the finish stucco texture should appear slightly irregular emphasizing the hand-made quality of the installation. All outside comers should have a minimum 1- inch radius bull nose. Basement level, skirt and understory walls should be of brick or stone.

Doors and Windows: Doors and windows should be wood or clad wood. Windows may be double or single-hung, casement or fixed. Divided lites for glazed doors and windows are encouraged and should be designed in typical "Craftsman" layout. Shutters may be allowed for this style.

Detail and Ornament: Details and ornament common to this style include decorative wood trim and detailing, brick and stonework using river rock and clinker brick, "craftsman" motif dark bronze hardware and light fixtures, lap and mortise wood joinery, bronze patina copper flashing, decorative shaped and patterned shingles, decorative ornament and entry door surrounds, painted brick detailing, dormer and transom windows, and tapered and boxed painted wood columns.

Cottage

Cottage architecture is the American Arts and Crafts interpretation of the English cottage style. With a sense of French influence, it denotes a small, often cozy dwelling, and small size that is integral to the style. Quaint detail and an overall minimalism is often seen along with the architectural projections, such as dormers, purlins, rafter tails and posts enhancing the cottage experience. This style is identified by the use of steep pitched roofs, often sweeping over the entry and thick walls to suggest a stucco-coated masonry wall construction. Hand-stacked stone veneer is often used as an accent surface material while plaster walled courtyards are often used to create outdoor rooms. Arched windows and stone trim are also prevalent.

In addition to the General Requirements, the following specific requirements should be considered when designing in this particular style:

Massing: Except for featured massing components (i.e. bay windows, towers) and the roof, building massing should either be rectangular or square. Featured massing components may be rectangular, square or octagonal. Additive massing composition is encouraged to reduce the perceived size of the building.

Roof Pitch: Whenever possible, most of the roof pitches shall not exceed 8:12. However, "featured" roof pitches which promote the "European Cottage" aesthetic shall not exceed 12:12. Short roof spans are also encouraged to reduce the perceived size of the building.

Roof Materials: Roof material should be either Class "A" fire-rated, fire-resistant wood shake roofing, slate shingle or dimensional asphalt shingle roofing, per code requirements. Synthetic wood shake or synthetic slate shingle may be acceptable.

Chimney Materials: Chimney walls should be either hand-stacked stone or hand-troweled exterior plaster ("stucco"). All chimneys must have a decorative chimney cap in a design that complements the style of the home.

Exterior Wall Materials: The primary wall material should be hand-troweled exterior plaster ("stucco"). This primary wall material should cover most exterior wall surfaces. The plaster finish coat texture should be applied to appear slightly irregular emphasizing the hand-made quality of the installation. All outside corners should have a minimum I-inch radius bull nose. Secondary "feature" walls should be hand-stacked stone. Basement level, skirt and understory walls should be either hand-stacked stone or hand-troweled exterior plaster.

Doors and Windows: Doors and windows should be steel, wood or clad wood. Windows may be casement or fixed. Divided lites for glazed doors and windows are encouraged and should be designed in an orthogonal grid layout. Shutters are allowed for this style.

Detail and Ornamentation: Details common to this style include steep attic roofs with dormer windows, decorative main entry door, transom windows, window boxes, heavy timber detailing, brick or stone wall caps and window sills, use of decorative ironwork.

Adobe Ranch

The “Adobe Ranch" style is representative of simple, adobe courtyard farmhouses of California's Spanish-occupied past. It is far less formal than that of the Spanish Colonial style. Mountainous and rugged terrains often lend itself to this vibrant, yet rustic, Spanish farmhouse interpretation. Adobe characteristics include: low-profile clay-tiled roofs, predominant one-story massing, courtyard plans, hand-troweled stucco over thickened walls and heavy timber porches. Doors and windows typically have simple detailing with no trim boards, heavy-timber headers and lintels, possibly shutters and extended wood sills.

In addition to the General Requirements, the following specific requirements should be considered when designing in this particular style:

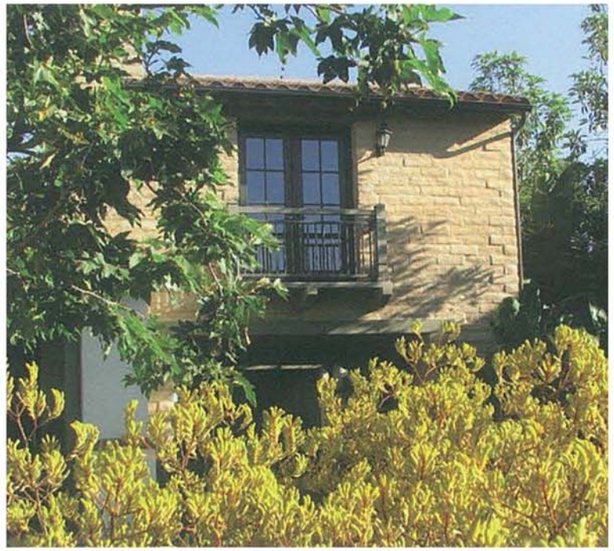
Massing: All massing components, except for the roof, should either be rectangular or square. Featured or projecting massing should also be rectangular or square. Additive massing composition is encouraged to reduce the perceived size of the building.

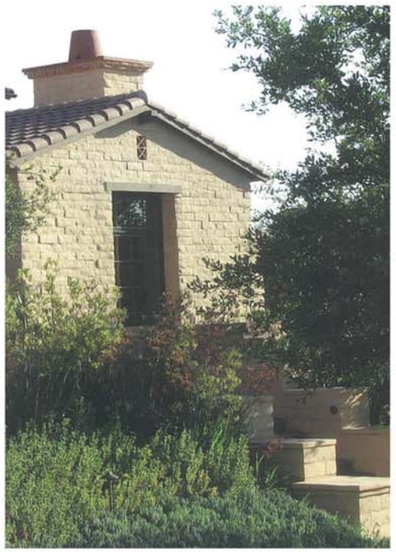
Roof Pitch: Roof pitches shall be low profile and not exceed 3.5: I2. Short roof spans are also encouraged to reduce the perceived size of the building.

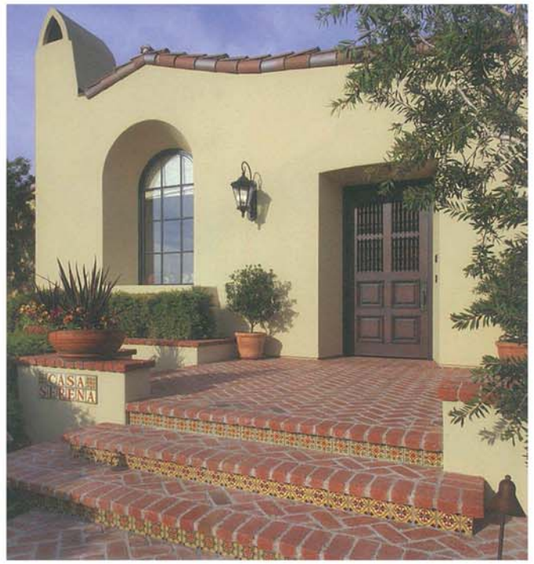
Roof Materials: All roofing must be comprised of two-piece clay barrel tiles, per code requirements. Tiles should be specified in a mixture of tile colors. End eave tiles should be boosted while ridge tiles may or may not be boosted. Random roof surface tiles may also be boosted. Mud stops should be installed while decorative stops may be acceptable.

Chimney Materials: Chimney walls should be hand-troweled exterior plaster ("stucco"). The plaster finish coat texture should be applied to appear slightly irregular emphasizing the hand-made quality of the installation. All outside corners should have a minimum I-inch radius bull nose. All chimneys must have a decorative chimney cap in a design that complements the style of the home.

Exterior Wall Materials: The primary wall material should be hand-troweled exterior plaster ("stucco"). Primary wall material should cover all exterior wall surfaces with the exception of wood components (i.e. eave, lintels porch, deck, railing, arbor and trellis). The plaster finish coat texture should be applied to appear slightly irregular emphasizing the hand-made quality of the installation. All outside corners should have a minimum I-inch radius bull nose. Basement level, skirt and understory walls should also hand-troweled exterior plaster ("stucco").







Doors and Windows: Doors and windows should be steel, wood or clad wood. Doors and windows should be installed "Adobe" style, without any applied wood trim and or surround. Windows may be casement or fixed. Divided lites for glazed doors and windows are encouraged and should be designed to have horizontal muntins only. Shutters are allowed for this style.

Detail and Ornamentation: Details common to this style include: "craftsman" motif hardware and light fixtures, lap and mortise wood joinery, precast decorative ornamentation and entry door surrounds, painted brick detailing, transom windows, tapered and boxed painted wood columns.

American Farmhouse

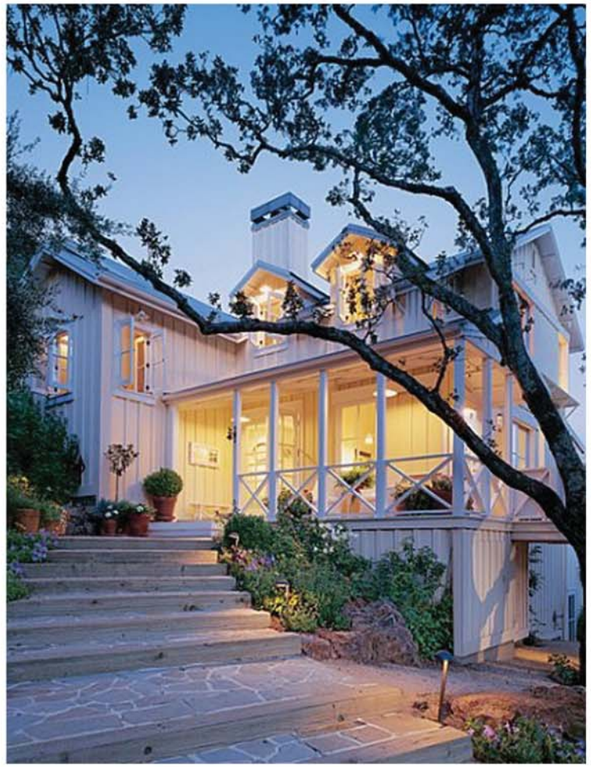
The American farmhouse was a functional home before it was an architectural style. The design of the American farmhouse was initially influenced strictly by function and geography. The farmhouse was always unpretentious, straightforward and functional, shaped by the needs of the farmers, the local climate and the materials available. American colonists built the earliest farmhouses in the early 18th century. Farmhouses were often built of raw logs—in what is considered a log-cabin style—or some combination of rough-hewn logs, native stone or mud. That changed in the mid-19th century, when railroads made it possible to transport manufactured materials across the country. This gave farmers access to many more style possibilities as well as the ability to build with brick, lumber and quarried stone.
The original building method of these homes was one room at a time building; live in one and the additional were built as needed. American farmhouses provide an open floor plan so everything flows. Wood siding is the most common, simple gable roof lines and traditional double hung windows and shutters. There is typically a large porch which acts as an additional living space when weather permits. The interior has traditional but simple details around windows and doors.

In addition to the General Requirements, the following specific requirements should be considered when designing in this particular style:

Massing: Except for featured massing components and the roof, the massing should be simple, rectangular or sometimes in a T shape. Straight forward, functional design is the emphasis on houses built to acknowledge the American Farmhouse. The massing is composed of basic asymmetrical shapes to allow for expansion. This style usually incorporates a welcoming wide front porch.

Roof Pitch: Roof pitches shall be a maximum 8:12 often with side and front facing gables. Eaves and rakes are typically very shallow. Roof form should be adequately broken into smaller masses to reduce the perceived size of the building.

Roof Materials: Roof material shall be either Class “A” fire-rated dimensional asphalt shingles, or standing seam metal, most typically a combination of both. The colors should be complimentary to the exterior color of the home.



Chimney Materials: Chimney walls can be either hand-troweled exterior plaster ("stucco"), brick or stone. All chimneys must have a decorative chimney cap in a design that complements the style of the home.

Exterior Wall Materials: Primarily wall materials should be a thoughtful composition combining various materials and should include vertical board and batt siding with a contrasting horizontal element of clapboard siding often with accents of stone.

Doors and Windows: Doors and windows should be wood or clad wood. Windows should be fixed or single-hung and small in nature. Avoid groupings of large picture windows. Windows should have a minimal amount of trim detail.

Prairie School

The Prairie School developed in sympathy with the ideals and design aesthetics of the Arts and Crafts Movement begun in the late 19th century in England. Prairie School was an architectural style, most common to the Midwestern United States. The designation Prairie is due to the dominant horizontality of the majority of Prairie School buildings which echoes the wide, flat, treeless expanses of the mid-Western United States. The Prairie School was also an attempt at developing an indigenous North American style of architecture that did not share design elements and aesthetic vocabulary with earlier styles of European classical architecture.

The style is usually marked by its integration with the surrounding landscape, strong horizontal lines, flat or hipped roofs pitched low with broad overhanging eaves which appear to spread out and hug the ground, windows (sometimes with art glass) in geometric shapes placed intricately in horizontal bands, solid construction, craftsmanship, and restraint in the use of ornament. Homes appear to grow out of the ground; very low and close to the terrain. Horizontal lines were thought to evoke and relate to the native prairie landscape. One-story cantilevered projections were typical and the entrances are typically secluded.

In addition to the General Requirements, the following specific requirements should be considered when designing in this particular style:

Massing: Except for featured massing components and the roof, the massing should be either rectangular or square. Horizontal is the emphasis on houses built to acknowledge the flat prairie lands. The massing is horizontal, and so are treatments such as porches, banded windows, and belt courses. The plans are generally organized around a central well-detailed chimney massing and are asymmetrical.

Roof Pitch: Roof pitches shall be a maximum 4:12 low-pitched hip roof with deep overhanging eaves, a minimum of 36". Depending on the design a gable might be considered. Roof form should have a strong balanced horizontal element, roof extension or cantilevered projection at the eaves. Roofs often extend over exterior rooms and/or walkways.

Roof Materials: Roof material shall be either Class "A" fire-rated, fire-resistant wood shake roofing, standing seam metal, or dimensional asphalt shingles. The colors should be black, dark brown or light brown.

Chimney Materials: Chimney walls should be either hand-troweled exterior plaster ("stucco"), brick or stone. All chimneys must have a decorative chimney cap in a design that complements the style of the home.

Exterior Wall Materials: Primarily wall materials should be a thoughtful composition combining various materials and may include light, earth colored stucco with a smooth hand-troweled or sand finish, horizontal wood or composition siding, brick and stone.

Doors and Windows: Doors and windows should be wood or clad wood. Windows should be fixed or casement and geometrically shaped and in multiply banks, groups or rows. Windows should be kept tight to the soffit.

County of San Mateo - Planning and Building Department

ATTACHMENT D

San Mateo County Board of Supervisors Meeting

Owner/Applicant: **O'Rourke/San Mateo Real Estate and Construction** Attachment: **D**

File Numbers: **PLN2002-0517**

County of San Mateo - Planning and Building Department

ATTACHMENT E

ATTACHMENT E

County of San Mateo
Planning and Building Department

In-Lieu Park Fee Worksheet

[This formula is excerpted from Section 7055 of the County's Subdivision Regulations]

This worksheet should be completed for any residential subdivision which contains 50 or fewer lots. For subdivisions with more than 50 lots, the County may require either an in-lieu fee or dedication of land.

1. **For the parcel proposed for subdivision, look up the value of the land on the most recent equalized assessment roll. (Remember you are interested in the land only.)**

   Value of Land = $1,065,696

2. **Determine the size of the subject parcel in acres.**

   Acres of Land = 13.25

3. **Determine the value of the property per acre.**

   a. **Set up a ratio to convert the value of the land given its current size to the value of the land if it were an acre in size.**

Formula:	
Parcel Size in Acres (From Item 2) / 1 Acre of Land	Value of Subject Parcel (From Item 1) / Value of Land/Acre
Fill Out:	
13.25 / 1 Acre	$1,065,696 / Value of Land/Acre

   b. **Solve for X by cross multiplying.**

Formula:				
Value of Land	=	Value of the Subject Parcel (From Item 1) / Size of the Subject Parcel in Acres (From Item 2)	=	
Fill Out:				
Value of Land	=	$1,065,696 / 13.25	=	$80,429.89

4. **Determine the number of persons per subdivision.**

Formula:				
Number of New Lots Created*	X	2.75**	=	Number of Persons Per Subdivision
*Example = A 2-lot split would = 1 newly created lot.				
Fill Out:				
13	X	2.75**	=	35.75
**Average number of persons per dwelling unit according to the most recent federal census (2010).				

5. **Determine the parkland demand due to the subdivision.**

Formula:				
Number of Persons Per Subdivision (From Item 4)	X	0.003*** Acres/Person	=	Parkland Demand
Fill Out:				
35.75	X	0.003*** Acres/Person	=	0.10725
***Section 7055.1 of the County's Subdivision Ordinance establishes the need for 0.003 acres of parkland property for each person residing in the County.				

6. **Determine the parkland in-lieu fee.**

Formula:				
Parkland Demand (From Item 5)	X	Value of the Land/Acre (From Item 3.b)	=	Parkland In-Lieu Fee
Fill Out:				
0.10725	X	$80,429.89	=	$8,626.10

County of San Mateo - Planning and Building Department

ATTACHMENT F-1

ATTACHMENT F-1

RESOLUTION NO. .

BOARD OF SUPERVISORS, COUNTY OF SAN MATEO, STATE OF CALIFORNIA

*** * * * * ***

EXHIBIT A
MITIGATION MONITORING AND REPORTING PLAN PROCEDURES

Section 21081.6 of the Public Resources Code requires a Lead Agency to adopt a "reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment" (Mitigation Monitoring Program, Section 15097 of the California Environmental Quality Act (CEQA) Guidelines provides additional direction on mitigation monitoring or reporting). The County of San Mateo (County) is the Lead Agency for the Ascension Heights Subdivision Project and is therefore responsible for enforcing and monitoring the mitigation measures in this Mitigation Monitoring and Reporting Plan (MMRP).

An Environmental Impact Report (EIR) has been prepared to address the potential environmental impacts of the project. Where appropriate, this environmental document identified project design features or recommended mitigation measures to avoid or to mitigate potential impacts identified to a level where no significant impact on the environment would occur. This MMRP is designed to monitor implementation of the required and recommended mitigation measures and conditions set forth for project approval for the Ascension Heights Subdivision Project as identified in the Draft Environmental Impact Report (DEIR) and the Final Environmental Impact Report (FEIR). The required and recommended mitigation measures as well as the conditions set forth for project approval are listed and categorized by either section and/or impact area, with an accompanying identification of the following:

Timing/Frequency of Action:	Phase of the project during which the mitigation measure shall be monitored.
Responsible for Implementing:	Party responsible for implementing the mitigation measure.
Responsible for Implementing:	Party to which reports involving feasibility, compliance, implementation and development are made.
Standards for Compliance:	Action to ensure implementation of mitigation measure.
Verification of Compliance:	To be completed by the party responsible of monitoring completion of the mitigation measure.

The MMRP for Ascension Heights Subdivision Project will be in place throughout all phases of the project. The project applicant shall be responsible for implementing all mitigation measures unless otherwise noted. The applicant shall also be obligated to provide certification, as identified below to the appropriate monitoring agency and the appropriate enforcement agency that compliance with the required mitigation measure has been implemented. The County will be used as the basic foundation for the MMRP procedures and will also serve to provide the documentation for the reporting program.

Generally, each certification report will be submitted to the County in a timely manner following completion/implementation of the applicable mitigation measure, and shall include sufficient information to reasonably determine whether the intent of the measure has been satisfied. The County shall assure that project construction occurs in accordance with the Mitigation Monitoring and Reporting Plan.

* * * * * *

Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
4.1 AESTHETICS					
4.1-1a Prior to recordation of the Final Map, the project applicant shall submit a landscape plan for review and approval by the San Mateo County Planning Department Community Development Director and allow for a 30-day public review and commenting period. The landscape plan shall include the location, size, and species of any proposed landscaping and shall include, but not be limited to, hedges or other appropriate vegetation that will provide opaque screening between the northeastern edge of the project site and the residences along the southern side of Parrott Drive. In addition, all proposed landscaping shall be of native, non-invasive species that must also minimize fire hazards and use water-efficient irrigation systems. Areas used for the storage of landscape maintenance or other equipment, supplies, or debris shall be shielded from view by fencing, landscaping or other means. Prior to final approval of the Final Map, a site inspection shall be required by the County Planning Department to verify that all approved landscaping has been implemented or bonds posted for performance; a maintenance bond shall be required. All perimeter landscaping shall serve to screen and/or enhance views of the project site from surrounding roadways and neighborhoods.	Prior to the approval of each phase of the Final Map	Applicant	PBD	Site inspection to verify compliance with mitigation measure	
4.1-1b Prior to the issuance of a grading permit "hard card," the applicant is required to submit a tree replacement plan that shall comply with the following specifications: • For each loss of a significant indigenous tree, there shall be a replacement with three or more trees, as determined by the Community Development Director, of the same species using at least 5-gallon size stock.	Prior and during construction	Applicant	PBD/CDFW	Site inspection to verify compliance with mitigation measures during construction; and subsequent monitoring as stipulated in the measure	

PBD = County of San Mateo Planning and Building Department CDFW = California Department of Fish and Wildlife USFWS = United State Fish and Wildlife Service SWRCB = State Water Resources Control Board EHSD = County of San Mateo Office of Environmental Health Services Division OES = County of San Mateo Office of Emergency Services Cal Water BSD = California Water Service Company Bayshore District CSCSD = Crystal Springs County Sanitation District BALD = Bel Aire Lighting District County Fire = County of San Mateo Fire Department Cal-Fire = California Department of Forestry and Fire Protection BAAQMD = Bay Area Air Quality Management District HOA = Home Owners Association

Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
• For each loss of a significant exotic tree, there shall be a replacement with three or more trees, as determined by the Community Development Director that the substitute tree can survive and flourish in the regional climatic conditions. • Replacement trees shall require a surety deposit for both performance (installation of tree, staking, and providing an irrigation system) and maintenance. Maintenance shall be required for no less than two and no more than five years as determined by the Community Development Director.					
4.2 AIR QUALITY AND GHG					
4.2-1a The applicant shall ensure through the enforcement of contractual obligations that construction contractors implement a fugitive dust abatement program during construction, which shall include the following elements consistent with the Basic Construction Mitigation Measures recommended by the Bay Area Air Quality Management District (BAAQMD): • Cover all trucks hauling soil, sand, and other loose materials. • Cover all exposed stockpiles. • Water all exposed roadway and construction areas two times a day. • Sweep paved streets three times daily (with water sweepers) if visible soil material is carried onto adjacent streets. • Limit traffic speeds on unpaved roads to 15 miles per hour (mph). • After grading is complete, construction of paved surfaces (e.g. roadways, driveways, sidewalks, building pads) should be completed as soon as possible unless	During construction	Applicant	PBD/ Construction Contractors/ BAAQMD	Site inspection to verify compliance with mitigation measures during construction; applicable forms submitted to BAAQMD	

PBD = County of San Mateo Planning and Building Department CDFW = California Department of Fish and Wildlife USFWS = United State Fish and Wildlife Service SWRCB = State Water Resources Control Board EHSD = County of San Mateo Office of Environmental Health Services Division OES = County of San Mateo Office of Emergency Services Cal Water BSD = California Water Service Company Bayshore District CSCSD = Crystal Springs County Sanitation District BALD = Bel Aire Lighting District County Fire = County of San Mateo Fire Department Cal-Fire = California Department of Forestry and Fire Protection BAAQMD = Bay Area Air Quality Management District HOA = Home Owners Association

Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
protected by seeding, soil binders, or other similar measures. • Limit idling time to a maximum of five minutes and turn off equipment when not in use; clear signage indicating this shall be displayed at the project site access point. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications and shall be checked by a certified visible emissions evaluator. • Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. • Any burning of cleared vegetation shall be conducted according to the rules and regulations of the BAAQMD's Regulation 5 (BAAQMD, 2008). Prior notification to BAAQMD shall be made by submitting an Open Burning Prior Notification Form to BAAQMD's office in San Francisco. • A publicly visible sign shall be posted with the telephone number and person to contact at the County regarding dust complaints. A response and corrective action shall occur within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.					
4.2-1b The applicant shall ensure through contractual obligations (to be contained within the Subdivision Improvement Agreement with the Department of Public Works per Condition No. 21) with construction contractors that the following Best Management Practices (BMPs) shall be implemented during all stages of construction:	During construction	Applicant	PBD/ Construction Contractors	Site inspection to verify compliance with mitigation measures during construction	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
• All heavy duty construction equipment shall be equipped with a diesel particulate matter filters. • Only low Reactive Organic Gas (ROG) coatings shall be utilized. • The applicant shall use only Tier 2 or better heavy-duty construction equipment.					
4.2-8 The applicant shall purchase CO2e emissions reduction credits in the amount of 249 MT prior to the start of construction. GHG CO2e emissions reduction credits are generated by projects that reduce their GHG emissions by the use of technology or a reduction in business over business as usual. The CO2e emission reduction credits must be permanently retired by the project applicant, thereby reducing annual emissions for the lifetime of the Proposed Project.	Prior and during construction	Applicant	PBD/CDFW	Verify completion	
4.3 BIOLOGICAL RESOURCES					
4.3-3a Prior to issuance of a grading permit "hard card," a qualified biologist shall conduct a minimum of two protocol level preconstruction surveys for listed bird species during the recommended survey periods for the nesting season that coincides with the commencement of construction activities: • Northern harrier: Present year-round, breeds March through August; • Burrowing owl: Present year-round, breeds primarily March through August, but can be February-December; and • White-tailed kite: Present year-round, breeding occurs in autumn. Nesting season begins in February and ends in August. These surveys will occur in accordance with the United States Fish and Wildlife Service (USFWS) Division of Migratory Bird Management Guidelines for Raptor Conservation in the United	Prior to issuance of grading building permits	PBD/CDFW	PBD/CDFW	Verify completion of surveys and submittal of letter reports	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
States (2008). The qualified biologist shall conduct surveys within 14 days of commencement of construction activities for northern harrier, burrowing owl, and white-tailed kite in the project site and within 0.25 miles of construction activities where legally permitted. The biologist will use binoculars to visually determine whether nests occur beyond the 0.25-mile survey area if access is denied on adjacent properties. If no active nests are identified on or within 0.25 miles of construction activities within the recommended survey periods, a report summarizing the survey results shall be submitted to the County and the California Department of Fish and Wildlife (CDFW) within 30 days following the survey, and no further mitigation for nesting habitat is required. Evidence, in the form of a letter documenting the results of the survey, shall be submitted to the Current Planning Section prior to the issuance of grading permit "hard card."					
4.3-3b If active listed bird nests are found within 0.25 miles of construction activities, the biologist shall contact the Current Planning Section and CDFW within one day following the pre-construction survey to report the findings. For purposes of this mitigation requirement, construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site during the identified nesting period. Should an active nest be present within 0.25 miles of construction areas, then CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest/burrow. The monitoring program	Prior to construction	PBD/CDFW	PBD/CDFW	Verify completion of surveys and additional stipulated mitigation if necessary	

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	Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
	would require that a qualified biologist shall monitor all activities that occur within the established buffer zone to ensure that disruption of the nest/burrow or forced fledging does not occur. Should the biologist determine that the construction activities are disturbing the nest/ burrow, the biologist shall halt construction activities until CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest/burrow site. If the CDFW determines that take may occur, the applicant would be required to obtain a California Endangered Species Act (CESA) take permit. Should the biologist determine that the nest/ burrow has not been disturbed during construction activities within the buffer zone, then a report summarizing the survey results will be submitted to the Current Planning Section and CDFW and no further mitigation for nesting habitat is required.					
4.3-4a	A qualified biologist shall conduct a pre-construction bird survey for nesting within 14 days prior to commencement of construction activities and prior to the issuance of a grading permit "hard card" if anticipated to commence during the appropriate nesting season (between February 1 and August 31). The qualified biologist shall document and submit the results of the pre-construction survey in a letter to CDFW and the County within 30 days following the survey. The letter shall include: a description of the methodology including dates of field visits, the names of survey personnel, a list of references cited and persons contacted, and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the pre-construction survey, then no further mitigation is required. Evidence, in the form of a report documenting the results of the survey, shall be submitted to the	Prior to construction	PBD/CDFW	PBD/CDFW	Verify completion of surveys and submittal of letter reports	

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Mitigation Measure		Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
	Current Planning Section prior to the issuance of any grading or building permits within the project site.					
4.3-4b	If any active nests are identified during the pre-construction survey within the project site, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delimit the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of the breeding season or until the young have fledged. Guidance from CDFW will be requested if establishing a 250-foot buffer zone is impractical. Guidance from CDFW will be requested if the nestlings within the active nest appear disturbed.	Prior and during construction	PBD/CDFW	PBD/CDFW	Verify completion of weekly surveys contingent on results of survey detailed in **Mitigation Measure 4.3-4a**	
4.3-4c	Trees anticipated for removal should be removed outside of the nesting season (February 1 and August 31). If trees are anticipated to be removed during the nesting season, a pre-construction survey shall be conducted by a qualified biologist prior to the issuance of a grading permit "hard card." If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey. If active nests are located within trees identified for removal, a 250-foot buffer shall be installed around the tree. Guidance from CDFW will be requested if the 250-foot buffer is infeasible.	Prior to construction	PBD/CDFW	PBD/CDFW	Verify completion of survey	
4.3-6	Prior to the issuance of a grading permit "hard card" and removal of any trees, a certified arborist or registered professional forester shall conduct an arborist survey documenting all trees with trunk circumferences of 38 inches or greater and their location, as well as any Tree Communities or Indigenous Trees regardless of size. The report shall be submitted to the Current Planning	Prior to issuance of grading permits	Applicant/PBD	PBD	Verify completion of surveys and submittal of letter reports	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
Section. The applicant shall not remove any trees without prior approval from the Community Development Director. All recommendations of the arborist report shall be implemented prior to the issuance of building permits for development on the project site. The arborist report shall specify measures including, but not limited to, the following: • Trees anticipated for removal shall be removed outside of the nesting season for birds. Taking into account the nesting season for the white-tailed kite, the nesting season shall be defined as February 1 to August 31. • The project proponent shall plant replacement significant and/or indigenous tree species recommended by the County at a 3:1 ratio within the project site.					
4.4 GEOLOGY AND SOILS					
4.4-1a Implement **Mitigation Measure 4.6-1** (Section 4.6; Hydrology and Water Quality) to identify and implement erosion control BMPs within the Stormwater Pollution Prevention Plans (SWPPP) (as specified in Condition No. 9) prepared for construction activities in accordance with the State's Clean Water Act National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. Implementation of these BMPs would ensure that temporary and short-term construction-related erosion impacts under the proposed project would be reduced to a less than significant level.	See **Mitigation Measure 4.6-1**				

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4.4-1b The applicant shall submit an Erosion and Sediment Control Plan prior to the issuance of a grading permit "hard card" as required in Condition No. 9. This Erosion and Sediment Control Plan shall be prepared by a licensed civil engineer or certified professional soil erosion and sediment control specialist. The plan shall show the location of proposed vegetative erosion control measures, including landscaping and hydroseeding, and the location and details of all proposed drainage systems. The plan shall include sufficient engineering analysis to show that the proposed erosion and sediment control measures during pre-construction, construction, and post-construction are capable of controlling surface runoff and erosion, retaining sediment on the project site, and preventing pollution of runoff in compliance with the Clean Water Act.	Prior to issuance of a grading permit	Applicant/PBD	PBD	Verify that site-specific erosion control and sediment plans and post construction plans have been prepared and implemented	
4.4-2a Grading and building designs, including foundation requirements, shall be consistent with the findings of the geotechnical investigation, the California Code of Regulations, and the California Building Code.	Prior to issuance of grading and building permits	Applicant/PBD	PBD	Project design review /grading and building standards	
4.4-2b The applicant shall comply with all recommendations contained within the site-specific Geotechnical Investigation conducted by Michelucci & Associates (2013) (FEIR; Appendix E).	Prior to issuance of grading and building permits	Applicant/PBD	PBD	Project design review /grading and building standards	
4.4-2c The applicant shall retain a qualified engineering geologist. All grading and installation of fill shall be performed under the observation of the qualified engineering geologist.	During grading/construction	Applicant/PBD	PBD	Verify site-specific grading standards	
4.4-3a Implement **Mitigation Measure 4.6-2** (Section 4.6; Hydrology and Water Quality) to ensure that the site storm water drainage system (including individual systems for each residence) shall not allow discharge of uncontrolled runoff onto the site slopes. Concentrated runoff shall not be	See **Mitigation Measure 4.6-2**				

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
allowed to flow over graded slopes or areas of thick soil, colluviums, or fill.					
4.4-3b Implement **Mitigation Measure 4.4-2c** to ensure the recommendations of the Geotechnical Investigation regarding subdrains and surface drainage are included in the project design.	See **Mitigation Measure 4.4-2c**				
4.6 WATER					
4.6-1 The applicant shall comply with the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Permit). The SWRCB requires that all construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Section 303 of the Clean Water Act. To comply with the NPDES permit, the applicant will file a Notice of Intent with the SWRCB and prepare a SWPPP prior to construction, which includes a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills) to include a description of the type and location of erosion and sediment control BMPs to be implemented at the project site; and a BMPs monitoring and maintenance schedule to determine the amount of pollutants leaving the proposed project site. A copy of the SWPPP must be current and remain on the project site. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP shall include, but are not limited to, the following: • Temporary erosion control measures (such as silt fences, staked straw bales, and	Prior to and during Construction	Applicant	Applicant/ SWRCB	Submit NOI to SWRCB. Verify that a SWPPP has been prepared and implemented	

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temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months. • Sediment shall be retained onsite by detention basins, onsite sediment traps, or other appropriate measures. • A spill prevention and countermeasure plan shall be developed which would identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site. The plan shall also require the proper storage, handling, use, and disposal of petroleum products. • Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction. • Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion. • Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter					

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fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out. • Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater. • Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events. • Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff. • Disturbed areas shall be revegetated after completion of construction activities. • All necessary permits and approvals shall be obtained. • Provide sanitary facilities for construction workers.					
4.6-2a Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the Homeowners Association (HOA) or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These requirements apply only to the bioretention treatment system area of the project site and are as follows: • Maintenance of soils and plantings, including routine pruning, mowing, irrigation, replenishment of mulch, weeding, and fertilizing with a slow-release fertilizer with trace elements.	During Project operations	PBD/HOA	PBD/HOA	Project design review /Project operations	

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• Removal of obstructions and trash from bioretention areas.
• Use of only pesticides and fertilizers that are accepted within the integrated pest management approach for use in the bioretention areas.
• Repair of erosion at inflow points.
• Monthly review and inspection of bioretention areas for the following:
  ○ Obstruction of trash.
  ○ If ponded water is observed, the surface soils shall be removed and replaced and subdrain systems inspected, and
  ○ Condition of grasses.
• Distribution of the following:
  ○ A copy of the storm water management plans shall be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system, and
  ○ Material presented in the integrated pest management program will be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system.					

4.6-2b Prior to recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These	During Project operations	PBD/HOA	PBD/HOA	Project design review/Project operations	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
requirements apply to all common areas of the project site and are as follows: • Drainage inlets shall be inspected monthly and kept clean of any trash that may have accumulated. It is the responsibility of the property manager/owner to have those inspections performed, documented, and any repairs made. • Landscape areas shall be covered with plants or some type of ground cover to minimize erosion. No areas are to be left as bare dirt that could erode. Mounding slopes shall not exceed two horizontal to one vertical. • Pesticides and fertilizers shall be stored as hazardous materials and in appropriate packaging; over spraying onto paved areas shall be avoided when applying fertilizers and pesticides. Pesticides and fertilizers shall be prohibited from being stored outside. • Landscape areas shall be inspected and all trash picked up and obstruction to the drainage flow removed on a monthly basis minimum. The project site shall be designed with efficient irrigation and drainage to reduce pesticide use. Plants shall be selected based on size and situation to reduce maintenance and routine pruning. • Integrated pest management information shall be provided to the building management.					

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4.6-2c Infiltration systems shall be designed in accordance with the following procedures outlined in the California Storm Water Best Management Practice Handbooks to reduce runoff and restore natural flows to groundwater: • Biofilters and/or vegetative swale drainage systems will be installed at roof downspouts for all buildings on the project site, allowing sediments and particulates to filter and degrade biologically. • Structural source controls, such as covers, impermeable surfaces, secondary containment facilities, runoff diversion berms, sediment, and grease traps in parking areas will be installed. • Designated trash storage areas will be covered to protect bins from rainfall.	During Project design phase and during construction activities	Applicant/PBD	PBD	Verify that infiltration systems are designed accordingly and that construction BMPs are implemented	
4.6-3a Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete and provide the documentation of annual inspection and cleaning of each of the 19 individual lot storm drainage systems. The inspection shall be performed during the dry season and shall include removal of all trash and obstructions from area drains, cleanouts, and catch basins.	During Project operations	PBD/HOA	CDD/HOA	Project design review/Project operations	
4.6-3b The 15-inch diameter stormwater drain pipe flowing at 2 percent that crosses Ascension Drive at Enchanted Way shall be replaced with a 21-inch diameter pipe. The 30-inch diameter stormwater drain pipe flowing at 1.3 percent shall be replaced with a 36-inch diameter pipe sloped at 2 percent. Stormwater drain pipe infrastructure improvements shall adhere to all applicable regulations and ordinances.	During construction	Applicant/PBD	PBD	Site inspection to verify compliance	

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4.7 HAZARDS AND HAZARDOUS MATERIALS					
4.7-1 The project applicant shall ensure through the enforcement of contractual obligations that all contractors transport, store, and handle construction-required hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the San Mateo County Planning and Building Department, Office of Environmental Health Services Division, and Office of Emergency Services. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using approved protocols.	During construction	Applicant/PBD/ OEHSD/OES	Applicant/PBD/ OEHSD/OES	Site inspection to verify compliance with mitigation measures during construction	
4.7-2 The applicant shall be required through contractual obligations that the construction contractor(s) mark(s) the areas planned to be disturbed in white paint and notify Underground Service Alert (USA) one week prior to the beginning of excavation activities. This will be completed so that the entire construction area is properly surveyed in order to minimize the risk of exposing or damaging underground utilities. USA provides a free "Dig Alert" service to all excavators (contractors, homeowners and others), in northern California, and will automatically notify all USA Members (utility service providers) who may have underground facilities at their worksite. In response, the USA Members will mark or stake the horizontal path of their underground facilities, provide information about, or give clearance to dig. This service protects excavators from personal injury and underground facilities from being damaged. The utility companies will be responsible for the timely removal or protection of any existing utility facilities located within construction areas.	During construction	PBD	PBD	Site inspection to verify compliance with mitigation measure during construction	

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4.7-3a The applicant shall ensure through the enforcement of contractual obligations that the following measures are implemented by contractors during project construction: • Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break. • Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	PBD	PBD	Site inspection to verify compliance with mitigation measure during construction	
4.7-3b The building plans of the Proposed Project shall be reviewed by a representative from County Fire/Cal-Fire to ensure that regulations in the County's Fire Ordinance are met and the project complies with County Fire/ Cal-Fire requirements. The development of the Proposed Project shall be in compliance with Chapter 15 of the County General Plan with respect to residential uses adjacent to open space areas where wildfire is a threat, as well as Cal-Fire requirements.	Prior to issuance of building permits	Applicant/PBD/ County Fire/ Cal-Fire	Applicant/PBD/ County Fire/ Cal-Fire	Project design review /Chapter 15 County General Plan	
4.8 NOISE					
4.8-1 The project applicant shall ensure through contractual agreements to be contained within the Subdivision Improvement Agreement (Condition No. 21) that the following measures are implemented during construction: • Construction activities shall be limited to occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturdays.	During construction	Applicant	PBD	Site inspection to verify compliance with mitigation measures during construction	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
Construction activities shall not occur on Sundays, Thanksgiving, or Christmas. The intent of this measure is to prevent construction activities during the more sensitive time period and minimize the potential for effects. • Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors. • All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations. • Construction activities shall conform to the following standards: (a) there shall be no start-up of machines or equipment, no delivery of materials or equipment, no cleaning of machines or equipment and no servicing of equipment except during the permitted hours of construction; (b) radios played at high volume, loud talking and other forms of communication constituting a nuisance shall not be permitted. • The general contractors for all construction activities shall provide a contact number for citizen complaints and a methodology for dealing with such complaints such as designating a noise disturbance coordinator. This noise disturbance coordinator shall receive all public complaints about construction-related noise and vibration, shall be responsible for determining the cause of the complaint, and shall implement any feasible measures to be taken to alleviate the problem. All complaints and resolution of complaints shall be reported to the County weekly.					

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
4.10 PUBLIC SERVICES, UTILITIES, AND RECREATION					
4.10-2a Residents of the Proposed Project shall comply with all requirements of Cal Water's Water Shortage Contingency Plan as mandated by Cal Water and BSD. These requirements may include, but are not limited to the following that shall be contained within an HOA agreement: • Voluntarily reduce water consumption at single-family residences; • Adhere to the minimum allocation given to single-family residential customers or pay penalty rate applied to service bill for use that is in excess of costumer's allocation; and/or • Comply with orders prohibiting the use of water for specific activities, such as a prohibition of potable water use for landscape irrigation.	Project operations	Cal Water BSD	Cal Water BSD	Cal Water Shortage Contingency Plan	
4.10-2b Pumping facilities shall be installed at the existing water tank owned by Cal Water to provide adequate water pressure for residential and fire protection uses. Cal Water shall be contacted to review pumping facilities design and ensure compliance with applicable standards. The project applicant shall be responsible for covering the cost of the development of these facilities prior to the recordation of the final subdivision map.	During construction	Applicant/Cal Water BSD	Cal Water BSD	Site inspection to verify compliance with mitigation measures during construction	
4.10-2c Two existing water mains shall be relocated such that they are within the right-of-way of the proposed private street or at the property boundary so as to allow ease of maintenance of the water mains. Prior to the issuance of a grading permit "hard card," a new Cal Water easement shall be established that meets with the approval of Cal Water to the project site to replace the existing Cal Water easements. The two water mains include an 8-inch diameter water main connecting	During construction	Applicant/Cal Water BSD	Cal Water BSD	Site inspection to verify compliance with mitigation measures during construction	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
the water tank to the water main located on Parrot Drive and a 10-inch diameter water main connecting the water tank to the water main located on Bel Aire Drive.					
4.10-3 The applicant shall offset the increase in sewer flow generated by the proposed project by reducing the amount of existing Inflow and Infiltration (I&I) into the CSCSD sewer system. The offset amount shall achieve a zero net increase in flow during wet weather events with implementation of the proposed project. This shall be achieved through the construction of improvements to impacted areas of the sewer system, with construction plans subject to CSCSD approval and required to be in compliance with applicable regulatory requirements. Construction of improvements, as approved by the CSCSD, shall be completed prior to the recordation of the final subdivision map.	Prior to construction	Applicant/CSCSD	CSCSD	Approval of sewer system construction improvements	
4.10-5 The applicant shall ensure that fire sprinklers with appropriate flow rates are installed for all structures that would be developed as a part of the Proposed Project, per County Fire/Cal-Fire's alternate materials and methods request.	During construction	County Fire/ Cal-Fire	County Fire/ Cal-Fire	Site inspection to verify compliance with mitigation measures during construction	
4.11 TRANSPORTATION AND CIRCULATION					
4.11-3 Either provide street lighting on the private streets to a level of 0.4 minimum maintained average foot-candles with a uniformity ratio of 6:1, average to minimum or ensure street lighting is consistent with safety standards of the County-governed Bel Aire Lighting District.	During construction	Applicant/BALD	BALD	Site inspection to verify compliance with mitigation measures during construction	
4.11-4 Within the corner sight triangles at the new street intersection, there shall be no walls, fencing, or signs that would obstruct visibility. Trees shall be planted so as to not create a "wall" effect when viewed at a shallow angle. The type of shrubbery planted within the triangles shall be such that it will grow no higher	During construction	Applicant	PBD	Project design review	

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Mitigation Measure	Timing/Frequency of Action	Responsible for Implementing	Responsibility for Monitoring	Standards for Compliance	Verification of Compliance
than 3 feet above the adjacent roadway surface. Trees planted within the sight triangle areas shall be large enough that the lowest limbs are at least 7 feet above the surface of the adjacent roadway. Street parking should be prohibited within the bounds of the sight triangle, as well as within the fire hammerhead turnarounds.					

JAC:pac – JACAA0025(Att – Exhibit A-Ascension Appeal)_WPS.DOCX

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County of San Mateo - Planning and Building Department

ATTACHMENT F-2

RESOLUTION NO. .

BOARD OF SUPERVISORS, COUNTY OF SAN MATEO, STATE OF CALIFORNIA

*** * * * * ***

STATEMENT OF FINDINGS AND FACTS

The findings and determinations contained herein are prepared in accordance with CEQA and the state CEQA Guidelines. The findings are based on the competent and substantial evidence, both oral and written, contained in the entire record of proceeding relating to the proposed project and EIR. The findings and determinations constitute the independent findings and determinations of the Board of Supervisors in all respects and are fully and completely supported by substantial evidence in the record as a whole. Any findings made herein must be deemed made, regardless of where it appears in this document. All of the language included in this document constitutes findings. If a finding fails to cross-reference or incorporate by reference any other part of these findings, it must be deemed to have been made if it appears in any portion of these findings or elsewhere in the record. These findings are only a summary of information in the record which supports the findings and all other information in support of the findings are incorporated herein by reference.

Pursuant to CEQA and the CEQA Guidelines, no findings are required for those impacts which are identified as less than significant in the Initial Study or EIR (Public Resources Code Section 21081; CEQA Guidelines Section 15091). So, these findings only address significant impacts of the proposed Project.

Under CEQA, lead agencies must adopt findings before approving a Project for which an EIR is required. (See Public Resources Code, Section 21081; CEQA Guidelines, Section 15091.) For each significant environmental effect identified in an EIR for a proposed Project, the approving agency must issue a written finding reaching one or more of three permissible conclusions: (1) that "[c]hanges or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the final EIR." (CEQA Guidelines, Section 15091, subd. (a)(1).); (2) that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency." (CEQA Guidelines, Section 15091, subd. (a)(2).); or (3) that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or Project alternatives identified in the final EIR." (CEQA Guidelines, Section 15091, subd. (a)(3).) Public Resources Code Section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines Section 15364 adds another factor:

"legal" considerations." (See also Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 565.)

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a Project. (City of Del Mar v. City of San Diego (1982) 133 Cal. App. 3d 410, 417.) "[F]easibility" under CEQA encompasses desirability "to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors." (Id.; see also Sequoyah Hills Homeowners Assn. v. City of Oakland (1993) 23 Cal.App.4th 704, 715.) CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Project modification or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the Project lies with some other agency. (CEQA Guidelines, Section 15091, subd. (a), (b).)

With respect to a Project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the Project if the agency adopts a Statement of Overriding Considerations setting forth the specific reasons why the agency found that the Project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, Sections 15093, 15043, subd. (b); see also Public Resources Code, Section 21081, subd. (b).) The California Supreme Court has stated, "[t]he wisdom of approving . . . any development Project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (Goleta II, 52 Cal. 3d at p. 576.)

The analysis and conclusions of the EIR, including but not limited to the responses to comments, are modified as set forth herein. As modified, the EIR and responses to comments are incorporated herein by this reference, and are hereby adopted as part of the findings. These findings constitute the best efforts to set forth the evidentiary and policy bases for the Board of Supervisor's decision to approve the Project in a manner consistent with the requirements of CEQA. Below are the required findings under CEQA for each significant environmental impact of the proposed Project.

SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE REDUCED TO LESS-THAN-SIGNIFICANT LEVELS

The analysis of the Proposed Project did not identify any significant and unavoidable impacts. All potential impacts would be either less than significant or would be reduced to a less-than-significant level with incorporation of proposed mitigation measures pursuant to the criteria contained in Appendix G of the CEQA Guidelines and relevant agency thresholds.

SIGNIFICANT IMPACTS REDUCED TO LESS THAN SIGNIFICANT THROUGH MITIGATION

AESTHETICS

Impact 4.1-1

The proposed project could have a significant adverse effect on scenic vistas, could substantially damage scenic resources, including trees; and could substantially degrade the existing visual character or quality of the site and its surroundings. The Proposed Project would result in a visual change to the project site by converting approximately 5.5 acres of a 13.3-acre area to a residential development. This includes 19 single-family residential units, a new street, and associated infrastructure. Approximately 7.8 acres would remain as dedicated open space and would include foot trails and approximately 0.45 acres of protected area in the west corner of the project site. Construction of the Proposed Project would result in the removal of approximately 43 of the 78 trees on the project site (approximately 55 percent). Tree removal could damage scenic resources and degrade a scenic vista. Further, tree removal constitutes degradation of a community of trees under Section 12,016 of the County Ordinance Code and could result in a thinning of the dense vegetation located along the northeastern edge of the project site between the project site and the existing residences along the southern side of Parrott Drive. Presently, some of the proposed residences are visible from portions of Parrott Drive, and reducing the vegetation located along the rear of existing residences may increase views of the proposed residences and therefore change the visual character and quality of the project site as viewed from Parrott Drive.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.1-1a:

Prior to recordation of the Final Map, the project applicant shall submit a landscape plan for review and approval by the San Mateo County Planning Department Community Development Director and allow for a 30-day public review and commenting period. The landscape plan shall include the location, size, and species of any proposed landscaping and shall include, but not be limited to, hedges or other appropriate vegetation that will provide opaque screening between the northeastern edge of the project site and the residences along the southern side of Parrott Drive. In addition, all proposed landscaping shall be of native, non-invasive species that must also minimize fire hazards and use water-efficient irrigation systems. Areas used for the storage of landscape maintenance or other equipment, supplies, or debris shall be shielded from view by fencing, landscaping or other means. Prior to final approval of the Final Map, a site inspection shall be required by the County Planning Department to verify that all approved landscaping has been implemented or bonds posted for performance; a maintenance bond shall

be required. All perimeter landscaping shall serve to screen and/or enhance views of the project site from surrounding roadways and neighborhoods.

Mitigation Measure 4.1-1b:

Prior to the issuance of a grading permit "hard card," the applicant is required to submit a tree replacement plan that shall comply with the following specifications::

- For each loss of a significant indigenous tree, there shall be a replacement with three trees, as determined by the Community Development Director, of the same species using at least 5-gallon size stock.
- For each loss of a significant exotic tree, there shall be a replacement with three, as determined by the Community Development Director that the substitute tree can survive and flourish in the regional climatic conditions.
- Replacement trees shall require a surety deposit for both performance (installation of tree, staking, and providing an irrigation system) and maintenance. Maintenance shall be required for no less than two and no more than five years as determined by the Community Development Director.

Facts in Support of the Findings:

The final project design would comply with all applicable General Plan policies, Subdivision Regulations and County Ordinance Codes and would be required to undergo County approval prior to issuance of building permits to ensure that the proposed homes and landscaping would be designed and constructed to be compatible with or contribute to the appearance and visual character of the surrounding area, and to comply with the Ascension Heights Design Handbook. Further, a majority (approximately 59 percent) of the project site would remain as dedicated open space and would include foot trails and approximately 0.45 acres of protected area in the west corner of the project site. While the Proposed Project would convert approximately 40 percent of an area that is currently valued as natural scenery in an urban setting to an urban development and thereby change the amount of open space and associated visual resources, the Proposed Project does not constitute a change in the visual character or quality of the area given that the surrounding area is primarily single-family residential neighborhoods. Through compliance with aforementioned regulations, the project would be consistent with development similar in visual context to the surrounding neighborhoods. Thus, project impacts on scenic resources would be less than significant.

AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Impact 4.2-1

Construction of the proposed project would result in a significant air quality impact if emissions are greater than 54 pounds per day for ozone precursors [reactive organic gasses (ROG) and nitrides of oxygen (NOx)] or $PM_{2.5}$ and/or 82 pounds per day for PM_{10}. Emissions generated from construction activities associated with grading and building resulting from implementation of the Proposed Project would be short-term, intermittent, and temporary in nature. However, these construction emissions have the

potential to represent a significant air quality impact. The grading and construction of the Proposed Project would result in the generation of ROG, NOx, PM_{10}, and $PM_{2.5}$ emissions. PM emissions are generally the direct result of site grading, excavation, road paving, and exhaust associated with construction equipment. PM emissions are largely dependent on the amount of ground disturbance associated with site preparation activities. Emissions of NOx and ROG are generally associated with employee vehicle trips, delivery of materials, and construction equipment exhaust. Mitigated and unmitigated emissions from construction activities were modeled using the California Emissions Estimator Model (CalEEMod) and were presented in Section 4.2.4 of the EIR. These emissions were then compared to the Bay Area Air Quality Management District's (BAAQMD's) thresholds to determine if the construction emissions of the Proposed Project would have a significant impact on regional air quality. As shown in Section 4.2.4 of the EIR, without mitigation the Proposed Project would exceed the BAAQMD threshold for NOx, resulting in a potentially-significant impact.

The incorporation of BAAQMD Guidelines and CalEEMod mitigation measures would minimize the identified significant effect from NOx resulting from construction activities. The reduction in construction emissions resulting from implementation of specific mitigation measures was estimated using CalEEMod and the results indicated that project-related emissions during construction would be reduced below significance threshold for NOx. Therefore, emissions from construction would be a less-than-significant impact.

Findings:
Changes or alterations have been required in, or incorporated into the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.2-1a:

The applicant shall ensure through the enforcement of contractual obligations that construction contractors implement a fugitive dust abatement program during construction, which shall include the following elements consistent with the Basic Construction Mitigation Measures recommended by the Bay Area Air Quality Management District (BAAQMD):

- Cover all trucks hauling soil, sand, and other loose materials.
- Cover all exposed stockpiles.
- Water all exposed roadway and construction areas two times a day.
- Sweep paved streets three times daily (with water sweepers) if visible soil material is carried onto adjacent streets.
- Limit traffic speeds on unpaved roads to 15 miles per hour (mph).
- After grading is complete, construction of paved surfaces (e.g., roadways, driveways, sidewalks, building pads) should be completed as soon as possible unless protected by seeding, soil binders, or other similar measures.
- Limit idling time to a maximum of five minutes and turn off equipment when not in use; clear signage indicating this shall be displayed at the project site access point.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications and shall be checked by a certified visible emissions evaluator.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.
- Any burning of cleared vegetation shall be conducted according to the rules and regulations of the BAAQMD's Regulation 5 (BAAQMD, 2008). Prior notification to BAAQMD shall be made by submitting an Open Burning Prior Notification Form to BAAQMD's office in San Francisco.
- A publicly visible sign shall be posted with the telephone number and person to contact at the County regarding dust complaints. A response and corrective action shall occur within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 4.2-1b:

The applicant shall ensure through contractual obligations (to be contained within the Subdivision Improvement Agreement with the Department of Public Works) with construction contractors that the following Best Management Practices (BMPs) shall be implemented during all stages of construction:

- All heavy-duty construction equipment shall be equipped with diesel particulate matter filters.
- Only low Reactive Organic Gas (ROG) coatings shall be utilized.
- The applicant shall use only Tier 2 or better heavy-duty construction equipment.

Impact 4.2-8

Construction and operation of the Proposed Project has the potential to result in cumulatively considerable emissions of greenhouse gases (GHGs). CalEEMod was used to estimate project-related construction GHG emissions. As shown in Section 4.2.4 of the EIR, estimated direct construction emissions would be 957.68 MT of CO2e over the construction period. Neither the California Air Resources Board (CARB) nor BAAQMD have a construction threshold for GHG emissions; therefore, a 26 percent or greater reduction in construction-related GHG emissions (the overall state reduction goal implemented by AB 32) would result in a less-than-significant impact to global climate change. With the implementation of Mitigation Measure 4.2-8, construction CO2e emissions from the Proposed Project would be reduced by 26 percent and would comply with the significance criteria for GHG construction emissions. Therefore, construction of the Proposed Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Construction emissions associated with the Proposed Project would not be cumulatively considerable in relation to global climate change.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.2-8:

> The applicant shall purchase CO_2e emissions reduction credits in the amount of 249 MT prior to the start of construction. GHG CO_2e emissions reduction credits are generated by projects that reduce their GHG emissions by the use of technology or a reduction in business over business as usual. The CO_2e emission reduction credits must be permanently retired by the project applicant, thereby reducing annual emissions for the lifetime of the proposed project.

Facts in Supporting of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.2-1a and b and 4.2-8. The rationale for the above finding is set forth in Section 4.2.4, Air Quality and Greenhouse Gas Emissions, of the EIR. In summary, implementation of these mitigation measures would ensure that construction-related emissions of ozone precursors and particulate matter are mitigated below the significant thresholds established by the responsible agency (BAAQMD) and emissions GHGs are consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. Accordingly, air quality impacts would be less than significant.

BIOLOGICAL RESOURCES

Impact 4.3-3

Construction activities have the potential to result in the disturbance of nesting or foraging habitat for northern harrier, burrowing owl, and white-tailed kite. Although unlikely, white-tailed kite have the potential to nest within the project site in the eucalyptus grove in the southeastern region of the property and in the Oak woodland in the north-central region of the property. Northern harrier has the potential to nest on the ground in non-native grassland habitat, as does the burrowing owl. Construction activities could result in disturbance of potential nest sites through the removal of the potential nest locations, and the temporary increases in ambient noise levels and increased human activity on the project site. Although no active nesting white-tailed kites were observed within the project footprint during the 2013 and 2015 biological surveys, preconstruction surveys are recommended to ensure conditions at the project site did not change between the time the surveys were conducted and the commencement of clearing activities that could impact newly developed nests. The mitigation measures identified below would ensure that impacts to listed nesting birds are reduced to less-than-significant levels through identification and avoidance of active nests or burrows.

The California Department of Fish and Wildlife (CDFW) considers 5 or more vacant acres within 10 miles of an active nest to be significant foraging habitat for raptor foraging, and the conversion to urban uses is a significant impact. The project site occurs within four miles of documented burrowing owl habitat/occurrence. No occurrences of Northern harrier have been documented within five miles of the project site. One white-tailed kite was observed foraging over the project site during the July 25, 2013 survey, but no other occurrences have been documented within five miles of the project site. The project site contains 7.44 acres of non-native brome grassland, 1.26 acres of oak woodland, and 1.17 acres of Knobcone Pine Forest which provide potential habitat for these species.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.3-3a:

Prior to issuance of a grading permit "hard card," a qualified biologist shall conduct a minimum of two protocol level pre-construction surveys for listed bird species during the recommended survey periods for the nesting season that coincides with the commencement of construction activities:

- Northern harrier: Present year-round, breeds March through August;
- Burrowing owl: Present year-round, breeds primarily March through August, but can be February through December; and
- White-tailed kite: Present year-round, breeding occurs in autumn. Nesting season begins in February and ends in August.

These surveys will occur in accordance with the United States Fish and Wildlife Service (USFWS) Division of Migratory Bird Management *Guidelines for Raptor Conservation in the United States* (2008). The qualified biologist shall conduct surveys within 14 days of commencement for northern harrier, burrowing owl, and white-tailed kite in the project site and within 0.25 miles of construction activities where legally permitted. The biologist will use binoculars to visually determine whether nests occur beyond the 0.25-mile survey area if access is denied on adjacent properties. If no active nests are identified on or within 0.25 miles of construction activities within the recommended survey periods, a report summarizing the survey results shall be submitted to the County and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is required. Evidence, in the form of a letter documenting the results of the survey, shall be submitted to the Current Planning Section prior to the issuance of grading permit "hard card."

Mitigation Measure 4.3-3b:

If active listed bird nests are found within 0.25 miles of construction activities, the biologist shall contact the Current Planning Section and CDFW within one day following the pre-construction survey to report the findings. For purposes of this

mitigation requirement, construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site during the identified nesting period. Should an active nest be present within 0.25 miles of construction areas, then CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest/burrow. The monitoring program would require that a qualified biologist shall monitor all activities that occur within the established buffer zone to ensure that disruption of the nest/burrow or forced fledging does not occur. Should the biologist determine that the construction activities are disturbing the nest/burrow, the biologist shall halt construction activities until CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest/burrow site. If the CDFW determines that take may occur, the applicant would be required to obtain a California Endangered Species Act (CESA) take permit. Should the biologist determine that the nest/burrow has not been disturbed during construction activities within the buffer zone, then a report summarizing the survey results will be submitted to the Current Planning Section and CDFW and no further mitigation for nesting habitat is required.

Impact 4.3-4

Grading and construction activities have the potential to result in the disturbance of nesting habitat for migratory birds and other birds of prey. Nesting habitat for migratory birds and other birds of prey protected under the Migratory Bird Treaty Act (MBTA) may include eucalyptus woodland and annual grassland within the project site and vicinity. Potential disruption of nesting migratory birds and other birds of prey during construction could result in nest abandonment or mortality. Likewise, increased human activity and traffic, elevated noise levels, and operation of machinery could also impact the birds if their nests are located within the vicinity of development areas. Although no active nesting migratory birds or birds of prey were observed within the project footprint during the 2013 and 2015 biological surveys, preconstruction surveys are recommended to ensure conditions at the project site didn't change between the time the surveys were conducted and the commencement of clearing activities that could impact newly developed nests.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.3-4a:

A qualified biologist shall conduct a pre-construction bird survey for nesting within 14 days prior to commencement of construction activities and prior to the issuance

of a grading permit "hard card" if anticipated to commence during the appropriate nesting season (between February 1 and August 31). The qualified biologist shall document and submit the results of the pre-construction survey in a letter to CDFW and the County within 30 days following the survey. The letter shall include: a description of the methodology including dates of field visits, the names of survey personnel, a list of references cited and persons contacted, and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the pre-construction survey, then no further mitigation is required. Evidence, in the form of a report documenting the results of the survey, shall be submitted to the Current Planning Section prior to the issuance of any grading or building permits within the project site.

Mitigation Measure 4.3-4b:

If any active nests are identified during the pre-construction survey within the project site, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will delimit the buffer zone with construction tape or pin flags within 250 feet of the active nest and maintain the buffer zone until the end of the breeding season or until the young have fledged. Guidance from CDFW will be requested if establishing a 250-foot buffer zone is impractical. Guidance from CDFW will be requested if the nestlings within the active nest appear disturbed.

Mitigation Measure 4.3-4c:

Trees anticipated for removal should be removed outside of the nesting season (February 1 and August 31). If trees are anticipated to be removed during the nesting season, a pre-construction survey shall be conducted by a qualified biologist prior to the issuance of a grading "hard card." If the survey shows that there is no evidence of active nests, then the tree shall be removed within ten days following the survey. If active nests are located within trees identified for removal, a 250-foot buffer shall be installed around the tree. Guidance from CDFW will be requested if the 250-foot buffer is infeasible.

Impact 4.3-6

Construction of the Proposed Project has the potential to remove trees protected within the tree preservation ordinance specified in the San Mateo County Significant Tree Ordinance. The County Tree Ordinance protects "significant" trees, being identified as any live tree which has a circumference measuring at or greater than 38 inches at a height of 4.5 feet above the ground or immediately below the lowest branch, whichever is lower. "Community of Trees" refers to an aesthetic grouping of trees, the removal of which would cause a significant ecological, aesthetic, or environmental impact in the immediate area. An "Indigenous Tree" is one known to be native to the County including any native willow, box elder, buckeye, madrone, oak, or laurel tree. Construction of the Proposed Project would require the removal of approximately 43 of the 78 trees (approximately 55 percent) on-site. This impact is significant.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.3-6:

Prior to the issuance of a grading permit "hard card" and removal of any trees, a certified arborist or registered professional forester shall conduct an arborist survey documenting all trees with trunk circumferences of 38 inches or greater and their location, as well as any Tree Communities or Indigenous Trees regardless of size. The report shall be submitted to the Current Planning Section. The applicant shall not remove any trees without prior approval from the Community Development Director. All recommendations of the arborist report shall be implemented prior to the issuance of building permits for development on the project site. The arborist report shall specify measures including, but not limited to the following:

- To the extent feasible, trees anticipated for removal shall be removed outside of the nesting season for birds. Taking into account the nesting season for the white tailed kite, the nesting season shall be defined as February 1 to August 31.
- The project proponent shall plant replacement significant and/or indigenous tree species recommended by the County at a 3:1 ratio within the project site.

Facts in Support of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.3-3a and b; 4.3-4a, b, and c; and 4.3-6. The rationale for the above finding is set forth in 4.3.4, Biological Resources, of the EIR. In summary, implementation of these mitigation measures would ensure that impacts to vegetation, wildlife, special-status species, and sensitive natural communities, as a result of development of the proposed Project, would be less than significant.

GEOLOGY AND SOILS

Impact 4.4-1

Earth-moving activities associated with construction of the Proposed Project have the potential to result in soil erosion or the loss of topsoil. Construction of the Proposed Project would involve grading, clearing, and landscaping activities associated with the development of residential units, roadways, and corresponding infrastructure (including potable water lines and storm water and sewage conveyance lines). Construction would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events, which could generate accelerated runoff, localized erosion, and sedimentation of local waterways. Vegetation clearing associated with the Proposed Project could remove obstacles to sediment transport and expose new soils. In addition, construction activities could expose soil to wind erosion effects that could adversely affect both on-site and nearby soils and the re-vegetation potential of the

area. Soils at the project site are characterized as having moderate erosion hazards. Without implementation of erosion control measures and Best Management Practices (BMPs), there could be substantial soil erosion and loss of topsoil from the project site.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.4-1a:

Implementation of Condition No. 8.t (Mitigation Measure 4.6-1 from Section 4.6; Hydrology and Water Quality) to identify and implement erosion control BMPs within the Stormwater Pollution Prevention Plans (SWPPP) (as specified in Condition No. 9) prepared for construction activities in accordance with the State's Clean Water Act National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. Implementation of these BMPs would ensure that temporary and short-term construction-related erosion impacts under the proposed project would be reduced to a less-than-significant level.

Mitigation Measure 4.4-1b:

The applicant shall submit an Erosion and Sediment Control Plan prior to the issuance of a grading permit "hard card" as required in Condition No. 9. This Erosion and Sediment Control Plan shall be prepared by a licensed civil engineer or certified professional soil erosion and sediment control specialist. The plan shall show the location of proposed vegetative erosion control measures, including landscaping and hydroseeding, and the location and details of all proposed drainage systems. The plan shall include sufficient engineering analysis to show that the proposed erosion and sediment control measures during pre-construction, construction, and post-construction are capable of controlling surface runoff and erosion, retaining sediment on the project site, and preventing pollution of runoff in compliance with the Clean Water Act.

Impact 4.4-2

The Proposed Project has the potential to result in structural damage and injury from seismic activity and related geologic hazards. Based on USGS mapping, there is a 90 percent probability that within the next 50 years, a magnitude of 6.0 or greater earthquake will affect the project site (USGS, 2009). Richter magnitude of 6.0 earthquakes correspond to MMI values of VII to VIII, which would result in slight damage to specially designed structures, and moderate damage to buildings not designed for seismically active areas. Although potential damage to people or structures from seismic ground shaking could be a concern, compliance with the CBC would require the site's seismic-design response spectrum to be established and incorporated into the design of all new structures. Structures and utilities would be designed to withstand seismic forces per CBC requirements. The CBC specifies that all proposed structures on the project site should be able to: resist minor earthquakes without damage; resist moderate earthquakes without structural damage but with some

nonstructural damage; and resist major earthquakes without collapse but with some structural as well as nonstructural damage. These construction standards would minimize the seismic ground shaking effects on developed structures; therefore, impacts related to ground shaking are less than significant and no mitigation is required.

It is anticipated that approximately 46,500 cubic yards of soil and bedrock will be excavated within the site, and approximately 20,000 cubic yards may be used as engineered fill on-site. If this fill material is determined to be unsuitable for use on-site, soils from other sources in the project vicinity would be utilized. With the incorporation of mitigation, fill materials would be tested to ensure their stability for use on the project site and placement of fill would be monitored to ensure compliance with all State and local requirements. Before a building permit can be issued for any structure, the Project applicant must submit a detailed Geotechnical Investigation to the building department (County General Plan Policy 15.21). The recommendations of the qualified engineering geologist in the geotechnical investigation will be incorporated into the project design. In addition, the applicant will comply with the San Mateo regulations for excavating, grading, filling, and clearing (San Mateo County Ordinance Code Section 8600 et seq.) by applying for a Grading Permit and implementing the BMPs therein.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.4-2a:

Grading and building designs, including foundation requirements, shall be consistent with the findings of the geotechnical investigation, the California Code of Regulations, and the California Building Code.

Mitigation Measure 4.4-2b:

The applicant shall comply with all recommendations contained within the site-specific geotechnical investigation conducted by Michelucci and Associates (2013) (FEIR; Appendix E).

Mitigation Measure 4.4-2c:

The applicant shall retain a qualified engineering geologist to ensure all grading and installation of fill is performed under the observation of the qualified engineering geologist.

Impact 4.4-3

The Proposed Project could potentially result in shallow landslides due to the depth of unconsolidated colluvium on the project site. The underlying sandstone bedrock of the Franciscan formation is very stable underneath the project site, meaning there is a low probability of deep-seated bedrock landslides. The unconsolidated colluvial material above the bedrock can be very deep in areas (at least a 5-foot depth on average and up to a maximum of 15 feet). Deep, unconsolidated material combined with the steep

slopes on the flanks of the knoll can create a shallow landslide hazard. Shallow landslides are typically caused by improper grading and placement of structural fill, loading of the top of a slope, seismic activity, and changes in pore pressure of the soil caused by increased drainage in the slope.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.4-3a:

> Implement Mitigation Measure 4.6-2 (from Section 4.6; Hydrology and Water Quality) to ensure that the site stormwater drainage system (including individual systems for each residence) shall not allow discharge of uncontrolled runoff onto the site slopes. Concentrated runoff shall not be allowed to flow over graded slopes or areas of thick soil, colluviums, or fill. See Condition No. 12 for additional requirements.

Mitigation Measure 4.4-3b:

> Implement Mitigation Measure 4.4-2c to ensure the recommendations of the geotechnical investigation regarding sub-drains and surface drainage are included in the project design.

Facts in Support of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.4-1a and b; 4.4-2a, b, and c; and 4.4-3a and b. The rationale for the above finding is set forth in Section 4.4, Geology & Soils, of the EIR. In summary, implementation of these mitigation measures would ensure that geotechnical impacts, as a result of development of the proposed Project, would be less than significant.

Impact 4.4-4

Development of the Proposed Project in combination with future projects in the region could result in cumulative effects associated with geology and soils. The project site falls within the City of San Mateo's sphere of influence, and implementation of the Proposed Project and other potential cumulative projects in the region, including growth resulting from build-out of the City of San Mateo's General Plan, could result in increased erosion and soil hazards and could expose additional structures and people to seismic hazards. Potential soil and seismic hazards from cumulative development could represent a significant cumulative impact if projects do not incorporate grading/erosion plans and are not developed to the latest building standards incorporating recommendations from site-specific geotechnical reports prepared for these projects. The County, City of San Mateo, and surrounding jurisdictions would implement mitigation measures specifically designed to avoid, reduce, or mitigate potential impacts associated with geology and soils. Therefore, after mitigation,

cumulative impacts would be considered less than significant and would not be cumulatively considerable.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.4-4:
Implement Mitigation Measures 4.4-1 through 4.4-3.

HYDROLOGY & WATER QUALITY

Impact 4.6-1

Construction activities could substantially degrade surface water and/or groundwater quality, which could violate water quality standards. Construction of the Proposed Project would involve grading, clearing, and landscaping activities associated with the development of residential units, roadways, and corresponding infrastructure (including potable water lines and storm water and sewage conveyance lines). Construction would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events, which could generate accelerated runoff, localized erosion, and sedimentation of local waterways. Disturbed areas and stockpiled soils exposed to winter rainfall could lead to sediment discharge into surface waters, resulting in a degradation of water quality. In addition, construction equipment and materials have the potential to leak, thereby discharging additional pollutants into local waterways. Pollutants potentially include particulate matter, sediment, oils, and greases and construction supplies such as concrete, paints and adhesives. Changes to drainage patterns resulting from construction activities could result in discharge of these pollutants into surface waterways causing an exceedance of water quality objectives, which could adversely impact beneficial uses of downstream water resources. The Proposed Project is required to comply with the most recent version of the California NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ), which mandates the development and implementation of a SWPPP. Additionally, implementation of the Proposed Project requires obtaining a San Mateo County Grading Permit, which includes the development of a site-specific Erosion and Sediment Control Plan.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.6-1:
The applicant shall comply with the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) General

Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Permit). The SWRCB requires that all construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Section 303 of the Clean Water Act. To comply with the NPDES permit, the applicant will file a Notice of Intent with the SWRCB and prepare a SWPPP prior to construction, which includes a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills) to include a description of the type and location of erosion and sediment control BMPs to be implemented at the project site; and a BMPs monitoring and maintenance schedule to determine the amount of pollutants leaving the proposed project site. A copy of the SWPPP must be current and remain on the project site. Control measures are required prior to and throughout the rainy season. Water quality BMPs identified in the SWPPP shall include, but are not limited to, the following:

- Temporary erosion control measures (such as silt fences, staked straw bales, and temporary revegetation) shall be employed for disturbed areas. No disturbed surfaces will be left without erosion control measures in place during the winter and spring months.
- Sediment shall be retained on-site by detention basins, on-site sediment traps, or other appropriate measures.
- A spill prevention and countermeasure plan shall be developed which would identify proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site. The plan shall also require the proper storage, handling, use, and disposal of petroleum products.
- Construction activities shall be scheduled to minimize land disturbance during peak runoff periods and to the immediate area required for construction. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff. Existing vegetation will be retained where possible. To the extent feasible, grading activities shall be limited to the immediate area required for construction.
- Surface water runoff shall be controlled by directing flowing water away from critical areas and by reducing runoff velocity. Diversion structures such as terraces, dikes, and ditches shall collect and direct runoff water around vulnerable areas to prepared drainage outlets. Surface roughening, berms, check dams, hay bales, or similar devices shall be used to reduce runoff velocity and erosion.
- Sediment shall be contained when conditions are too extreme for treatment by surface protection. Temporary sediment traps, filter fabric fences, inlet protectors, vegetative filters and buffers, or settling basins shall be used to detain runoff water long enough for sediment particles to settle out.
- Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of groundwater.

- Topsoil removed during construction shall be carefully stored and treated as an important resource. Berms shall be placed around topsoil stockpiles to prevent runoff during storm events.
- Establish fuel and vehicle maintenance areas away from all drainage courses and design these areas to control runoff.
- Disturbed areas shall be revegetated after completion of construction activities.
- All necessary permits and approvals shall be obtained.
- Provide sanitary facilities for construction workers.

Impact 4.6-2

Urban runoff resulting from the development of impervious surfaces and urban land uses on the project site have the potential to degrade water quality and violate water quality standards or waste discharge requirements. The Proposed Project has the potential to violate water quality standards during operation. The conversion of land would increase the amount of impervious surfaces, which would alter the existing drainage pattern of the project site and could result in increased runoff flows that could lead to increased soil erosion or sedimentation to local surface waters. During storm events, rainwater collects atmospheric pollutants and, upon surface impact, gathers roadway contaminant deposits including oxygen-consuming constituents, suspended solids/particulates, nutrients, heavy metals, trace organics, and microorganisms. The increase in vehicular traffic and roadway surfaces on the project site would increase the level of contaminants in stormwater runoff. In addition, residential land uses typically result in the use of various household products that often are deposited into the drainage system both directly by pouring oil down a storm drain or indirectly by fertilizer and pesticide runoff into storm drains. Landscaped areas typically result in the use of pesticides, herbicides, and fertilizers. Urban runoff might include waste associated with typical residential uses including: motor oil; grease; paints; solvents; trace metals from pavement runoff; nutrients and bacteria from pet wastes; and landscape maintenance debris that may be mobilized in wet-season storm runoff from housing and roadway areas, parking areas, and in dry-season “nuisance flows” from landscape irrigation. Potential adverse impacts to local surface waters include an exceedance of surface water quality objectives resulting in sedimentation, eutrophication, and accumulation of pollutants in sediments and benthic organisms, and harm to native species.

In Order No. 99-059, adopted July 21, 2004, the SFBRWQCB amended the SMCWPPP NPDES Permit to incorporate specific new development and redevelopment requirements (SFBWQCB, 2004). The requirements apply to development projects that exceed certain thresholds of impervious surface area. Beginning in August 2006, any project that creates at least 10,000 square feet of impervious surface must comply with C.3 Provisions of the NPDES permit. In 2003, the San Mateo Countywide NPDES Municipal Stormwater Discharge Permit (NPDES Permit No. CAS0029921) was amended to include stricter requirements for post-construction stormwater control measures. New development projects, including the Proposed Project, are required by the NPDES permit to incorporate site design, source control, and treatment measures to the “maximum extent practicable” and to use stormwater control measures that are technically feasible (likely to be effective) and not cost prohibitive, as described in C.3

Provisions of the NPDES permit. Since more than 10,000 square feet of impervious surface would be created by the Proposed Project, the project must comply with C.3 Provisions of the NPDES permit and incorporate various prescribed measures into the project design.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.6-2a:

Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the Homeowners Association (HOA) or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These requirements apply only to the bioretention treatment system area of the project site and are as follows:

- Maintenance of soils and plantings, including routine pruning, mowing, irrigation, replenishment of mulch, weeding, and fertilizing with a slow-release fertilizer with trace elements.
- Removal of obstructions and trash from bioretention areas.
- Use of only pesticides and fertilizers that are accepted within the integrated pest management approach for use in the bioretention areas.
- Repair of erosion at inflow points.
- Monthly review and inspection of bioretention areas for the following:
  - Obstruction of trash,
  - If ponded water is observed, the surface soils shall be removed and replaced and sub-drain systems inspected, and
  - Condition of grasses.
- Distribution of the following:
  - A copy of the stormwater management plans shall be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system, and
  - Material presented in the integrated pest management program will be made available to personnel in charge of facility maintenance and shall be distributed to the subcontractor representative engaged in the maintenance or installation of the bioretention system.

Mitigation Measure 4.6-2b:

Prior to recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete the following tasks and provide the following information on a routine basis. These requirements apply to all common areas of the project site and are as follows:

- Drainage inlets shall be inspected monthly and kept clean of any trash that may have accumulated. It is the responsibility of the property manager/owner to have those inspections performed, documented, and any repairs made.
- Landscape areas shall be covered with plants or some type of ground cover to minimize erosion. No areas are to be left as bare dirt that could erode. Mounding slopes shall not exceed two horizontal to one vertical.
- Pesticides and fertilizers shall be stored as hazardous materials and in appropriate packaging; over spraying onto paved areas shall be avoided when applying fertilizers and pesticides. Pesticides and fertilizers shall be prohibited from being stored outside.
- Landscape areas shall be inspected and all trash picked up and obstruction to the drainage flow removed on a monthly basis minimum. The project site shall be designed with efficient irrigation and drainage to reduce pesticide use. Plants shall be selected based on size and situation to reduce maintenance and routine pruning.
- Integrated pest management information shall be provided to the building management.

Mitigation Measure 4.6-2c:

Infiltration systems shall be designed in accordance with the following procedures outlined in the California Stormwater Best Management Practice Handbooks to reduce runoff and restore natural flows to groundwater:

- Biofilters and/or vegetative swale drainage systems will be installed at roof downspouts for all buildings on the project site, allowing sediments and particulates to filter and degrade biologically.
- Structural source controls, such as covers, impermeable surfaces, secondary containment facilities, runoff diversion berms, sediment, and grease traps in parking areas will be installed.
- Designated trash storage areas will be covered to protect bins from rainfall.

Impact 4.6-3

Development of the Proposed Project would substantially alter the existing drainage patterns and may cause flows to exceed the capacity of existing stormwater drainage systems, result in substantial pollution on- or off-site, or result in flooding on-or off-site. Assuming the maximum allowable development footprint would be developed, the Proposed Project will create approximately 2.1 acres of impervious surfaces through construction of residences, driveways, roads, and sidewalks. The existing drainage system on the project site is able to accommodate the current pre-development runoff, with two exceptions. During rainfall events, discharge exceeds the capacity of the stormwater drain pipe that cross Ascension Drive at Enchanted Way (15 inch diameter, 2 percent slope) and the outfall stormwater drain pipe that crosses Polhemus Road (30-inch, 1.3 percent slope). This conclusion was based on hydrological calculations performed using the Rational Method (Q=C*I*A) for 10-year storm events, as required by the County's "Guidelines for Drainage Review." The Proposed Project would include an on-site stormwater drainage system designed and sized such that runoff from the

Proposed Project will be released at pre-development rates. Each individual lot will have its own separate stormwater retention system that will be oversized to accommodate runoff from the on-site private street. The system will meter discharge from each individual lot to the collective on-site storm drainage system, which consists of underground pipes, inlets, drainage structures and retention systems, concrete valley gutters, and a bioretention treatment system. The bioretention treatment system is a CDS hydrodynamic separator runoff treatment device designed to remove as many pollutants as possible, including small sedimentation particles. Given the long retention time of the proposed stormwater retention systems per each individual lot, impacts to the existing system during peak flows will be minimized. However, the system requires regular maintenance to ensure proper performance.

Given the capacity of the proposed stormwater drainage system and ability to delay peak flows, the Proposed Project would have a minimal impact to the existing stormwater drain system. However, the systems are designed for a 10-year event. Should the rainfall exceed that of a 10-year event or should the system become intermittently clogged, the slope of the project site and surrounding areas is such that water will run as overland flow and will drain into the nearby creek and thereby would neither pond on the project site nor flood adjacent properties.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.6-3a:

> Prior to the recordation of the final subdivision map, a maintenance agreement shall be developed between the County and the HOA or equivalent entity requiring the HOA or equivalent entity to complete and provide the documentation of annual inspection and cleaning of each of the 19 individual lot storm drainage systems. The inspection shall be performed during the dry season and shall include removal of all trash and obstructions from area drains, cleanouts, and catch basins.

Mitigation Measure 4.6-3b:

> The 15-inch diameter stormwater drain pipe flowing at 2 percent that crosses Ascension Drive at Enchanted Way shall be replaced with a 21-inch diameter pipe. The 30-inch diameter stormwater drain pipe flowing at 1.3 percent shall be replaced with a 36-inch diameter pipe sloped at 2 percent. Stormwater drain pipe infrastructure improvements shall adhere to all applicable regulations and ordinances.

Impact 4.6-5

Implementation of the Proposed Project would neither degrade groundwater quality nor substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table. As stated in Section 4.6.2 of the Draft EIR, the project site

does not contain a high groundwater table, as evidenced by project site surveys and test borings conducted on the project site. The soils on the project site are well-drained with a high runoff potential, which reduces the ability of the project site to contribute to groundwater recharge of the underlying basin. Increasing impervious surfaces on the project site as a result of implementation of the Proposed Project would not result in a significant decrease in groundwater infiltration. There are no aquifers below the site or in the vicinity of the project site. No pumping activities or drilling of groundwater wells are proposed with the Proposed Project. Potable water demands created by the project would be served by Cal Water, which is ultimately supplied by the Hetch Hetchy Reservoir.

Mitigation Measures 4.6-1, 4.6-2a, and 4.6-2b, which are protective of surface water quality, would also protect groundwater from potential contamination by pollutants. The Proposed Project would not impact groundwater quality.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Facts in Support of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.6-1; 4.6-2a, b, and c; and 4.6-3a and b. The rationale for the above finding is set forth in Section 4.6, Hydrology & Water Quality, of the EIR. Best Management Practices and a Stormwater Pollution Prevention Plan would reduce the amount of pollution from stormwater runoff at Project sites throughout the project site, and impacts to hydrology and water quality would be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Impact 4.7-1

Construction of the Proposed Project would include the routine transport, storage, and handling of hazardous materials, which have the potential to result in a public health or safety hazard from the accidental release of hazardous materials into the environment. During grading and construction activities, it is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. would be brought onto the site. Temporary storage units (bulk above-ground storage tanks, 55-gallon drums, sheds/trailers, etc.) would likely be used by various contractors for fueling and maintenance purposes. As with any liquid and solid, the handling and transfer between one container to another has the potential for an accidental release. Construction contractors will be required to comply with applicable federal and State environmental and workplace safety laws. Adherence to these regulatory requirements would ensure that this impact is less than significant.

Findings:

Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.7-1:

The project applicant shall ensure through the enforcement of contractual obligations that all contractors transport, store, and handle construction-required hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the San Mateo County Planning and Building Department, Office of Environmental Health Services Division, and Office of Emergency Services. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using approved protocols.

Impact 4.7-2

Construction of the Proposed Project has the potential to release hazardous materials into the environment through reasonably foreseeable upset or accident conditions, which may create a significant hazard. Underground utilities, such as water, sewer, electrical, and gas lines, may be located in the construction area of the project site. During the initial phases of construction of the Proposed Project, underground utilities could be encountered. Ground disturbance and excavation activities in areas with underground utilities could result in damage to those utilities, increasing the risk for explosion or release of hazardous materials into the environment.

Findings:

Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.7-2:

The project applicant shall require through contractual obligations that the construction contractor(s) marks the areas planned to be disturbed in white paint and notify Underground Service Alert (USA) one week prior to the beginning of excavation activities. This will be completed so the entire construction area is properly surveyed in order to minimize the risk of exposing or damaging underground utilities. USA provides a free “Dig Alert” service to all excavators (contractors, homeowners and others), in northern California, and will automatically notify all USA Members (utility service providers) who may have underground facilities at their work site. In response, the USA Members will mark or stake the horizontal path of their underground facilities, provide information about, or give clearance to dig. This service protects excavators from personal injury and underground facilities from being damaged. The utility companies will be responsible for the timely removal or protection of any existing utility facilities located within construction areas.

Impact 4.7-3

The Proposed Project has the potential to expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Construction
Equipment used during grading and construction activities may create sparks, which could ignite dry grass on the project site. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. This risk, similar to that found at other construction sites, is considered potentially significant.

Operation
The project site is located within the San Mateo County (County) Local Responsibility Area (LRA) produced by the California Department of Forestry and Fire Protection (Cal-Fire). The Cal-Fire map designates the project site in a Very High Fire Hazard Severity Zone (VHFHSZ). Any buildings and infrastructure associated with the Proposed Project would be required to meet all applicable fire standards relating to construction quality, equipment access, and fire flow requirements. The County, the Uniform Building Code, and current Cal-Fire regulations adequately address issues related to wildland fires.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.7-3a:

The applicant shall ensure through the enforcement of contractual obligations to be contained within the Subdivision Improvement Agreement that the following measures are implemented by contractors during project construction:

- Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.
- Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

Mitigation Measure 4.7-3b:

The building plans of the proposed project shall be reviewed by a representative from County Fire/Cal-Fire to ensure that regulations in the County's Fire Ordinance are met and the project complies with County Fire/Cal-Fire requirements. The development of the proposed project shall be in compliance with Chapter 15 of the County General Plan with respect to residential uses adjacent to open space areas where wildfire is a threat, as well as Cal-Fire requirements (Condition No. 49).

Impact 4.7-5

The Proposed Project in combination with future growth and development in the project vicinity would result in cumulative effects associated with hazards and hazardous materials. Construction If unmitigated, construction and operation of the Proposed Project in combination with potential cumulative development in the project vicinity could lead to impacts related to hazards and hazardous materials. The Proposed Project and related projects in the cumulative year, would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction. Impacts related to these activities are extensively regulated by various federal, State, and local agencies, and it is assumed that related projects would also comply with these hazardous materials regulations. Hazard-related impacts are site specific (e.g., have the potential to affect only a limited area). These hazards require implementation of project-specific mitigation measures to reduce the potential for adverse impacts to a less-than-significant level. Reduction of on-site hazardous related impacts, as discussed above, would ensure that construction activities would not result in impacts that would be cumulatively considerable. Implementation of Mitigation Measure 4.7-5 would ensure that cumulatively considerable impacts would not occur, and this impact is therefore considered less than significant. Less than Significant with Mitigation. Operation of the Proposed Project and cumulative development projects could result in impacts if development were to result in potential exposure of hazardous materials to sensitive individuals or the general public-at-large or if additional projects in the vicinity were to include the use or storage of hazardous materials. Because hazardous materials impacts are site specific and the Proposed Project would not include land uses that utilize or require substantial volumes of hazardous materials, the project would not contribute to cumulatively considerable hazardous impacts. Implementation of Mitigation Measure 4.7-5 would ensure that cumulatively considerable impacts would not occur. Therefore, this impact is considered less than significant. Less than Significant with Mitigation.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.7-5:
Implement Mitigation Measures 4.7-1 through 4.7-3.

Facts in Support of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.7-1; 4.7-2; and 4.7-3a and b. The rationale for the above finding is set forth in Section 4.7, Hazards and Hazardous Materials, of the EIR. Best Management Practices would prevent the dispersion of hazardous materials on the project site during construction and would prevent wildfires, and impacts related to hazards and hazardous materials would be less than significant.

NOISE AND VIBRATION

Impact 4.8-1

Construction of the Proposed Project has the potential to generate a substantial temporary or periodic noise level greater than existing ambient levels in the project vicinity. Noise levels as a result of construction would cause an exceedance of the County's land use compatibility maximum level of 60 dBA for exterior residential land uses. Because of the nature of construction activities of the Proposed Project and the location of the project site, feasible noise mitigation for consistently reducing the noise levels below the 60-dBA threshold is unavailable. As a result, temporary substantial noise increases associated with project construction would be considered potentially significant. However, in accordance with the County Noise Ordinance 4.88.360, noise from construction activities occurring during the hours specified in Mitigation Measure 4.8-1 is exempt from the 60-dBA noise threshold.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.8-1:

The project applicant shall ensure through contractual agreements to be contained within the Subdivision Improvement Agreement that the following measures are implemented during construction:

- Construction activities shall be limited to occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activities shall not occur on Sundays, Thanksgiving, or Christmas. The intent of this measure is to prevent construction activities during the more sensitive time period and minimize the potential for effects.
- Stationary equipment and staging areas shall be located as far as practical from noise-sensitive receptors.
- All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds, in accordance with manufacturers' recommendations.
- Construction activities shall conform to the following standards: (a) there shall be no start-up of machines or equipment, no delivery of materials or equipment, no cleaning of machines or equipment and no servicing of equipment except during the permitted hours of construction; (b) radios played at high volume, loud talking and other forms of communication constituting a nuisance shall not be permitted.
- The general contractors for all construction activities shall provide a contact number for citizen complaints and a methodology for dealing with such complaints such as designating a noise disturbance coordinator. This noise disturbance coordinator shall receive all public complaints about construction-related noise and vibration, shall be responsible for determining the cause of

the complaint, and shall implement any feasible measures to be taken to alleviate the problem. All complaints and resolution of complaints shall be reported to the County weekly.

Impact 4.8-2

Construction of the Proposed Project has the potential to expose existing sensitive noise receptors to construction traffic noise in excess of the County's noise standards. During construction of the Proposed Project, a maximum of 20 worker round trips per day would occur, as stated in Section 3.4.3. Although construction trips would generally occur outside of the peak hour, it is assumed for this noise analysis that all construction trips occur during the peak traffic hour to provide a worst case scenario analysis. In addition, it is estimated that an 4.8 Noise and Vibration Analytical Environmental Services 4.8-14 Ascension Heights Subdivision Project January 2016 Final EIR average of 156 soil and material hauling trips per day would occur during the 30-day period of grading activities on the project site (Appendix H). Because trucks are louder than passenger cars, a passenger car equivalence (PCE) multiplier of 8 cars per truck was used (TRB, 2000). Therefore, the total equivalent passenger car trips added by the Proposed Project would be 1,268 per day in the worst case scenario analysis. The traffic volume is 1,592 vehicle trips per day on Ascension Drive and 806 vehicle trips per day on Bel Aire Road (Appendix H). The existing ambient noise level along Bel Aire Road was measured at 51.7 dBA, Ldn (Table 4.8-2). The addition of 20 vehicle trips and 156 truck trips (equivalent to 1,268 vehicle trips) per day on Bel Aire Road would increase the noise level to 55.8 dBA, Ldn (refer to Eq4.8-1 in the Method of Analysis Section above), which is less than the 60 dBA, Ldn County noise significance threshold. With implementation of Mitigation Measure 4.8- 1, noise from the construction vehicle traffic associated with the Proposed Project would result in a less-than-significant impact. Less than Significant with Mitigation.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Facts in Support of the Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measure 4.8-1. The rationale for the above finding is set forth in Section 4.8, Noise and Vibration, of the EIR. Best Management Practices would reduce the exempt construction noise impact to the extent feasible and reasonable.

PUBLIC SERVICES, UTILITIES, AND RECREATION

Impact 4.10-2

The Proposed Project would require the construction of new and the relocation of existing water supply facilities, the construction of which could cause significant environmental effects. The increase in population due to the Proposed Project is consistent with population projections contained in the 2010 Urban Water Management Plan. As discussed in Section 4.10.2 of the Draft EIR, water supply is projected to fall short of water demand in single and multiple dry years. The California Water Service Company (Cal Water) Bayshore District (BSD) (also known as Mid-Peninsula District) anticipates meeting water demands in dry years by implementing its Water Shortage Contingency Plan, which is a series of procedures and outreach strategies designed to reduce customer demand. Mitigation Measure 4.10-2a is included below to ensure that the Proposed Project would comply with the Water Shortage Contingency Plan.

Water from the existing storage tank would be used to supply the proposed development. However, the existing water system does not have adequate pressure to supply peak day and peak hour water demands of the Proposed Project. Additionally, the existing water mains and associated Cal Water easements are located in areas proposed for development of individual residential lots.

Cal Water is near build out conditions and has set boundaries. Increases in water demand will likely be due to infill projects. Seven reasonably foreseeable projects in addition to the Proposed Project are located in BSD, one of which will result in an additional water demand equaling 2,781 4.10 Public Services, Utilities, and Recreation Analytical Environmental Services 4.10-26 Ascension Heights Subdivision Project January 2016 Final EIR gpd (0.003 mgd). Table 4.10-6 is a summary of water demand for BSD. The sum of the existing demand and demand of reasonably foreseeable projects (total demand) is approximately 13.262 mgd. As discussed in Section 4.10.2, shortfalls exist in the water supply during single and multiple dry years in future years. With implementation of Mitigation Measure 4.10-2a, the impacts of the Proposed Project would be reduced to a less-than-significant level.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.10-2a:

Residents of the proposed project shall comply with all requirements of Cal Water's Water Shortage Contingency Plan as mandated by Cal Water and BSD. These requirements may include, but are not limited to the following that shall be contained within an HOA agreement:

- Voluntarily reduce water consumption at single-family residences;
- Adhere to the minimum allocation given to single-family residential customers or pay penalty rate applied to service bill for use that is in excess of costumer's allocation; and/or
- Comply with orders prohibiting the use of water for specific activities, such as a prohibition of potable water use for landscape irrigation.

Mitigation Measure 4.10-2b:

Pumping facilities shall be installed at the existing water tank owned by Cal Water to provide adequate water pressure for residential and fire protection uses. Cal Water shall be contacted to review pumping facilities design and ensure compliance with applicable standards. The project applicant shall be responsible for covering the cost of the development of these facilities prior to the recordation of the final subdivision map.

Mitigation Measure 4.10-2c:

Two existing water mains shall be relocated such that they are within the right-of-way of the proposed private street or at the property boundary so as to allow ease of maintenance of the water mains. Prior to the issuance of a grading permit "hard card," a new Cal Water easement shall be established that meets with the approval of Cal Water to the project site to replace the existing Cal Water easements. The two water mains include an 8-inch diameter water main connecting the water tank to the water main located on Parrott Drive and a 10-inch diameter water main connecting the water tank to the water main located on Bel Aire Drive.

Impact 4.10-3

The Proposed Project would exceed the wet weather capacity of the wastewater conveyance system and would require upgrades to existing wastewater treatment facilities, the construction of which could cause significant environmental effects. Sewer pipelines within the Town of Hillsborough and the City of San Mateo that would serve the Proposed Project have capacity issues during wet weather events. The additional wastewater generated by the Proposed Project would exacerbate these issues. Additionally, the Proposed Project cannot connect to the sewer system and associated wastewater treatment plant (WWTP) unless the project applicant commits to and completes construction of improvements to reduce inflow and infiltration to the sanitary sewer system such that the new project would result in a zero net increase of inflow during wet weather events.

The combined wastewater generated by the Proposed Project and by 22 reasonably foreseeable projects (refer to Appendix G) served by the City of San Mateo WWTP was determined to be 0.460 mgd, which is less than the WWTP surplus capacity of 3.3 mgd. In addition, only two of the reasonably foreseeable projects are located within the CSCSD service area; the wastewater generation rate for the posed Project and by reasonably foreseeable projects within the CSCSD service area is 0.0064 mgd (Appendix G). CSCSD is predominantly built-out and is not expected to experience a significant growing demand for sewer service in the long term (Appendix G and Porter, 2013). With implementation of Mitigation Measure 4.10-3, the cumulative impact of the Proposed Project on existing wastewater treatment facilities will be less than significant.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.10-3:

The applicant shall offset the increase in sewer flow generated by the proposed project by reducing the amount of existing Inflow and Infiltration (I&I) into the CSCSD sewer system. The offset amount shall achieve a zero net increase in flow during wet weather events with implementation of the proposed project. This shall be achieved through the construction of improvements to impacted areas of the sewer system, with construction plans subject to CSCSD approval and required to be in compliance with applicable regulatory requirements. Construction of improvements, as approved by the CSCSD, shall be completed prior to the recordation of the final subdivision map.

Impact 4.10-4

The Proposed Project would require the expansion of existing stormwater drainage facilities, the construction of which would cause significant environmental effects. Development of the Proposed Project would substantially alter existing drainage patterns and may cause flows to exceed the capacity of existing stormwater culverts. The existing drainage system on the project site is able to handle the current pre-development runoff, with two exceptions. During rainfall events, discharge exceeds the capacity of the stormwater drain pipe that crosses Ascension Drive at Enchanted Way (15-inch diameter, 2 percent slope) and the outfall stormwater drain pipe that crosses Polhemus Road (30-inch diameter, 1.3 percent slope). Mitigation Measure 4.6-3b is included to increase the capacity of the existing stormwater drainage system and ensure that the construction of such infrastructure upgrades would not result in a significant environmental effect. Furthermore, as discussed in Section 4.6.4 of the Draft EIR, the Proposed Project would include an on-site stormwater drainage system designed and sized such that runoff from the Proposed Project will be released at pre-development rates. Each individual lot will have its own separate stormwater retention system that will meter discharge from each individual lot to the collective on-site storm drainage system. Mitigation Measure 4.6-3a is included to ensure proper maintenance of each lot's individual stormwater retention system. In the cumulative scenario, the amount of stormwater drainage from the Proposed Project would not increase, and other cumulative development projects would be subject to local, State, and federal regulations designed to minimize cumulative impacts, including those impacts related to stormwater drainage.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Impact 4.10-5

The Proposed Project would generate a demand for fire protection services, which could require the construction of new or expanded facilities that may cause significant environmental impacts.

Construction
Construction of the Proposed Project would introduce additional potential sources of fire to the project site that could result in the need for fire-fighting services. Construction activities would be temporary in nature and are anticipated to occur periodically over a 27-month period. Equipment used during grading and periodic construction activities may create sparks, which could ignite dry grass on the project site. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. In addition, medical emergencies could result from construction-related accidents, which could result in a response from fire protection services. Strict fire and personnel safety requirements and standards, typical of the industry, would be included in the construction contractor's contract. Additionally, implementation of Mitigation Measure 4.7-3 would reduce the risk of wildland fires during construction to a less-than-significant level. Therefore, construction of the Proposed Project would not strain the San Mateo City Fire Department or County Fire/ Cal-Fire such that the construction of new or expanded facilities would be required and the potential impact would be less than significant with mitigation.

Operation
The Proposed Project includes a residential community that would be constructed on a project site that is currently uninhabited and undeveloped open space. Residential uses require a higher level of fire protection services compared to open space, due to the increased number of emergency calls and higher associated fire risk. Increased calls for service could decrease area response times as well as strain fire protection resources, which could result in the need to construct new or expanded facilities to meet demands. The Proposed Project would be designed to minimize service demands on the San Mateo City Fire Department and County Fire/Cal-Fire; these design features include the installation of fire hydrants, access roads without physical barriers, and water service to provide adequate fire flow. Mitigation Measure 4.10-2a, discussed above, would ensure adequate water pressure for fire protection services. All buildings would be built to the current California Building Code and California Fire Code. Additionally, per the alternate materials and methods request of County Fire/Cal-Fire, fire sprinklers for all structures within the proposed development would have a higher discharge thereby further alleviating impacts to fire protection services; Mitigation Measure 4.10-5 is included to ensure installation of this type of fire sprinkler.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.10-5:

The applicant shall ensure that fire sprinklers with appropriate flow rates are installed for all structures that would be developed as a part of the proposed project, per County Fire/Cal-Fire's alternate materials and methods request.

Facts in Support of Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.10-2a, b, and c; 4.10-3; and 4.10-5. The rationale for the above finding is set forth in Section 4.10, Public Services, of the EIR. In summary, implementation of these mitigation measures would ensure that impacts of public services as a result of development of the proposed Project would be less than significant.

TRANSPORTATION AND CIRCULATION

Impact 4.11-3

Implementation of the Proposed Project would not conflict with adopted policies, plans, or programs, including those related to safety and performance, regarding public transit, bicycle, and pedestrian facilities but does have the potential develop unsafe pedestrian and bicycle facilities. The Proposed Project would result in an increase in bicycle and pedestrian trips in the vicinity of the project site by residents and visitors. The Proposed Project may also result in an increase in demand for mass transit service. However, the Proposed Project is not anticipated to hinder and would not eliminate any existing bikeways or pedestrian way or interfere with the implementation of the planned bicycle and pedestrian improvements in the project study area. Likewise, the Proposed Project would not interfere with mass transit systems, and the level of transit usage generated by the Proposed Project is not anticipated to exceed the capacity of the available and planned transit system in the project study area and the region. The Proposed Project would provide off-street sidewalks along all new roadways. Such provisions would result in enhanced pedestrian connectivity between the existing neighborhoods to the north and west of the project site. The project is not anticipated to result in unsafe condition for pedestrians and bicyclists; to ensure pedestrians' and bicyclists' safety at night on the project site, Mitigation Measure 4.11-3 is provided.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.11-3:
Either provide street lighting on the private streets to a level of 0.4 minimum maintained average foot-candles with a uniformity ratio of 6:1, average to minimum or ensure street lighting is consistent with safety standards of the County-governed Bel Aire Lighting District.

Impact 4.11-4

Implementation of the Proposed Project has the potential to substantially increase hazards due to the design of the new private street and proposed intersection with Bel Aire Drive. The Proposed Project includes development of a new private street on the project site to provide access to all proposed residences. The private street would connect with Bel Aire Road at the northern corner of the project site via a new intersection. The paved area of the private street would be approximately 36 feet wide, providing 22 feet for two travel lanes (11 feet per lane) and 14 feet for parallel parking spaces (7 feet per side). Street grades would range from 11 to 19 percent; any street with a slope greater than 15 percent would be constructed of concrete whereas all other streets would be asphalt. Figure 3-7 of the Draft EIR (Private Street Cross Sections) provides a diagram. The private street and intersection would be developed in accordance with applicable County standards. Mitigation Measure 4.11-4 is included to ensure a safe sight distance at the proposed new intersection.

Findings:
Changes or alterations have been required in, or incorporated into, the Project which would avoid or substantially lessen the significant environmental effects identified in the EIR.

Mitigation Measure 4.11-4:

> Within the corner sight triangles at the new street intersection, there should be no walls, fencing, or signs that would obstruct visibility. Trees should be planted so as to not create a "wall" effect when viewed at a shallow angle. The type of shrubbery planted within the triangles should be such that it will grow no higher than 3 feet above the adjacent roadway surface. Trees planted within the sight triangle areas should be large enough that the lowest limbs are at least 7 feet above the surface of the adjacent roadway. Street parking shall be prohibited within the bounds of the sight triangle, as well as within the fire hammerhead turnarounds.

Facts in Support of Findings:
The potentially significant effects would be reduced to less-than-significant levels through implementation of the Mitigation Measures 4.11-3 and 4.11-4. The rationale for the above finding is set forth in Section 4.11, Transportation and Circulation, of the Draft EIR. In summary, implementation of these mitigation measures would ensure that traffic impacts as a result of development of the Proposed Project would be less than significant.

* * * * * *

County of San Mateo - Planning and Building Department

ATTACHMENT G

ATTACHMENT G

County of San Mateo
Planning & Building Department
455 County Center, 2nd Floor
Redwood City, California 94063
650/363-4161 Fax: 650/363-4849

Mail Drop PLN122
plngbldg@co.sanmateo.ca.us
www.co.sanmateo.ca.us/planning

Please reply to: James A. Castañeda
(650) 363-1853

February 11, 2010

Mr. Dennis Thomas
San Mateo Real Estate & Construction
1777 Borel Place, Suite 330
San Mateo, CA 94402

PROJECT FILE

Mr. John O'Rourke
29 San Francisco Street
Brisbane, CA 94005

Dear Mr. Thomas and Mr. O'Rourke:

Subject:	**REVISED LETTER OF DECISION**
File Number:	**PLN2002-00517**
Location:	**Bel Aire Road and Ascension Drive, San Mateo**
APN's:	**041-111-130,-160,-270,-280,-320, -360**

On February 10, 2010 the Planning Commission approved the minutes of the December 9, 2009 meeting, with regard to PLN2002-00517, to more precisely express the analysis of the project by the Commission. These revisions do not change the Planning Commission's recommendation, or the appeal period for the project. These modifications have been added to the original decision letter and are identified in underlined italics below.

On December 9, 2009, the San Mateo County Planning Commission considered a Major Subdivision, pursuant to Section 7010 of the County Subdivision Ordinance and the State Subdivision Map Act, a Grading Permit, pursuant Section 8600 of the San Mateo County Ordinance Code, and certification of a Final Environmental Impact Report (FEIR), pursuant to the California Environmental Quality Act (CEQA), for the proposed Ascension Heights Subdivision located in the unincorporated San Mateo Highlands area of San Mateo County. The project includes the subdivision of the 13.25-acre subject site into 27 legal parcels for development of 25 single-family dwellings, a proposed conservation area (lot A), and "tot-lot" (lot B), which includes a main private access road, and an Emergency Vehicle Access road to provide additional fire access

After receiving answers to questions from staff and the applicant, the Commissioners expressed various concerns that had not been overcome or answered by the information on which a decision must be made. Primary among these were Commissioner Bomberger's and Slocum's concern that the project as proposed was requesting the creation of new subdivision for lots that did not appear to conform with General Plan Policy 15.20.b. (Wherever possible, avoid construction on steeply sloping areas (generally above 30%), which had been shown to be a significant impact under the DEIR. The Commissioners, including Commissioner Wong, expressed a related concern regarding geotechnical and drainage/erosion impacts from building over a 5-year period on the proposed lots. Commissioner Slocum also expressed concerns about General Plan provisions regarding visual impacts in scenic corridors, which could be seen as resulting from building numerous 3-story buildings of over 36 feet in total height on the proposed lots on the steep south facing slope.

Based on information provided by staff and evidence presented at the hearing, the Planning Commission denied (4-0) The following:

1. A resolution certifying the Final Environmental Impact Report (FEIR) as complete, correct and adequate and prepared in accordance with CEQA.

2. A resolution adopting a Statement of Overriding Considerations.

3. A resolution adopting the Mitigation Monitoring Report and the Statement of Findings and Facts in Support of Findings.

4. The vesting tentative map for a major subdivision, the grading permit, and the removal of four significant trees by making the findings and adopting the conditions of approval as set forth in Attachment A.

The Planning Commission's motion also directed the applicant to meet with the community to seek a design that does not build on the steep south facing slope of the site and directed staff to assist as appropriate.

In addition, to provide guidance to the applicant to aid in any further efforts to modify the proposal, the Planning Commission encouraged the applicant to: 1) provide more moderate-sized housing, 2) address the concerns about avoiding building on the steep south facing slope, and 3) develop a new design that could minimize negative impacts.

Commissioner Slocum distributed an illustrative drawing depicting a potential approach to a redesign that would appear to avoid the significant impacts identified in the Draft EIR and address many of the remaining concerns expressed by the community by avoiding development and new roads with retaining walls on the steep south facing slope but yet allow for development of approximately 18 – 19 homes on more modest sized lots on the flatter areas of the site. (See attached.);and Commissioner Dworetsky expressed concern that there appeared not to have been any recent outreach to or collaboration with the surrounding community by the applicant.

Any interested party aggrieved by the determination of the Planning Commission has the right of appeal to the Board of Supervisors within ten (10) business days from such date of determination. The appeal period for this matter will end at **5:00 p.m. on December 23, 2009.**

If you have questions regarding this matter, please contact the Project Planner listed on page one.

Sincerely,

Rosario Fernandez
Planning Commission Secretary
Pcd1209T_ascension(Revdenial).doc

Enclosure: Gail Slocum Illustrative Variation on DEIR

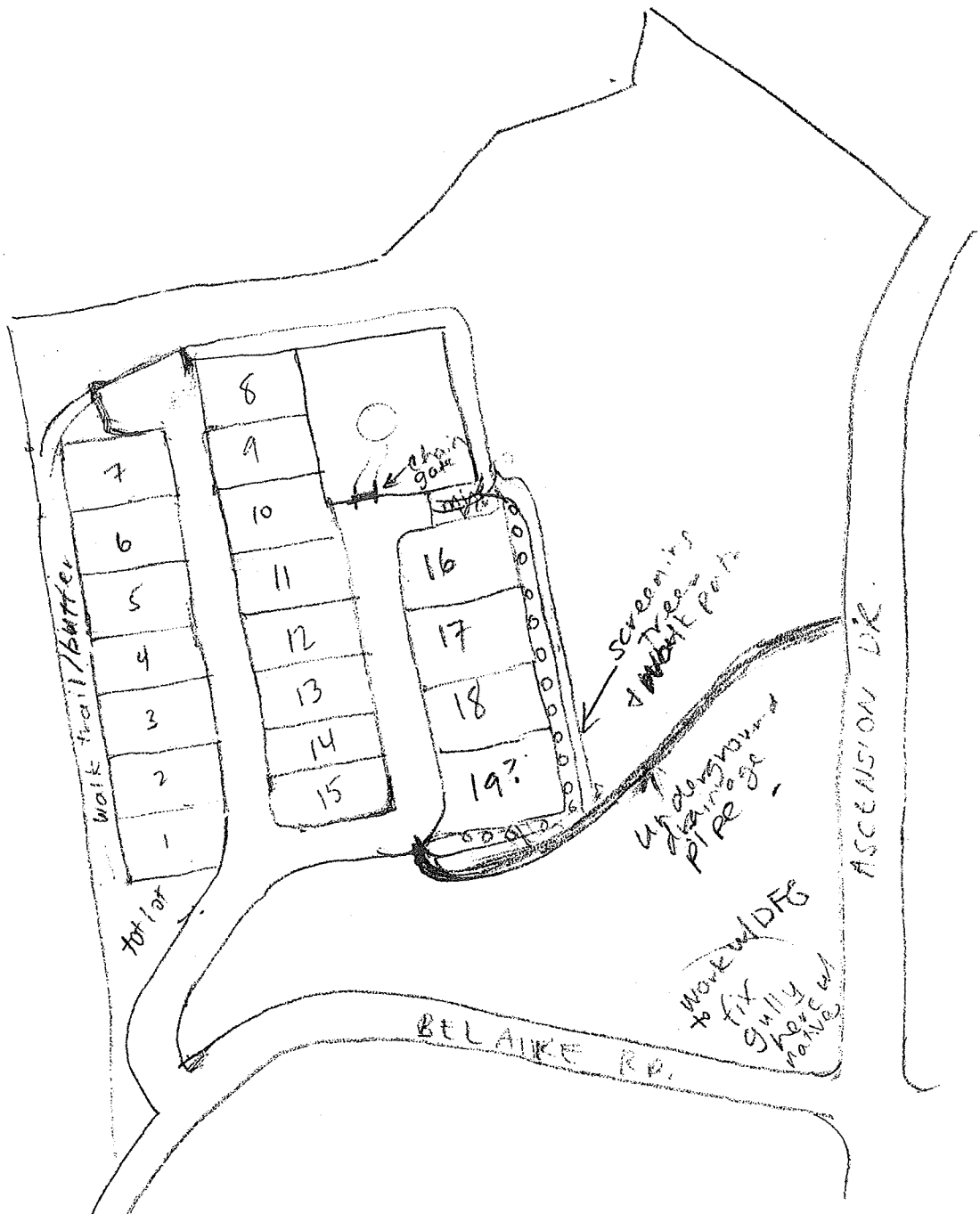
cc: Department of Public Works
Building Inspection Section
Gerard Ozanne, M.D.
Angela Stricklzy
Robert Stricklzy
Craig Nishizaki
Douglas Heiton
Donald Nagle
Clayton Nagle
Harris Dubrow

Pat Dubrow
Gilma Walker
Caron and Noam Tabb
Marilyn Haithcox
Pat Dubrow
Ara Jabagchourian
Carol McGraw
Dr. Robert Snow
Russ Wright
Ted Glasgow
Suzanne Kennedy
Sam Naifeh
Terence Day
Steve Simpson
Michael Hann
Bob Dobel
Eugene Ciranni
Alissa Reindel
Michele Pilgrim
Barbara Mikulis
T. Jack Foster
Stelon Delorenzi
Carol Henton
Rosemarie Thomas
John Shroyer
Wendy Z. Browne
Kim Ricket
Frank Shissler
George Mitroff
Peter B. Pitkin
Gary Ernst
Kirk McGowan
Scott Miller
Anastassia Nagle
Robert Snow
Ted Sayre
Barbara Bailey

ILLUSTRATIVE VARIATION ON DEIR ALT. B -- Gail Slocum 12/9/09

Still allows ~18 SFD units, but (per DEIR) is superior to Proposed Project because:

- No "scenic impact (no building on the steep South slope face)
- Far less impervious surface (~1/2, with no EVA) less drainage/retaining wall issues
- Far less chance of slope failure in major earthquake (EIR points to south side)
- Far less air quality/grading/erosion impact because significantly less soil removal
- Far less or no biological/sensitive plant & species habitat impact



County of San Mateo - Planning and Building Department

ATTACHMENT H

ATTACHMENT H

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
650-363-4849 F
www.planning.smcgov.org

October 14, 2015

Mr. Dennis Thomas
San Mateo Real Estate
1777 Borel Place, Suite 330
San Mateo, CA 94402

Dear Mr. Thomas:

Subject:	**LETTER OF DECISION**
File Number:	PLN 2002-00517
Location:	Bel Aire Road in the San Mateo Highlands
APNs:	041-111-130, 041-111-160, 041-111-270, 041-111-280, 041-111-320, and 041-111-360

On October 14, 2015, the San Mateo County Planning Commission considered a Major Subdivision, pursuant to Section 7010 of the County Subdivision Ordinance, a Grading Permit, pursuant to Section 8600 of the San Mateo County Ordinance Code, and certification of a Final Environmental Impact Report (FEIR), pursuant to the California Environmental Quality Act (CEQA), for the proposed Ascension Heights Subdivision.

The project includes the subdivision of the 13.25-acre subject site (Water Tank Hill) into 21 legal parcels for development of 19 single-family dwellings with the remaining two lots as conservation (Lot A) and common space (Lot C) areas, including a main private access road. The project site is accessed from Bel Aire Road north of Ascension Drive.

Based on information provided by staff and evidence presented at the hearing, the Planning Commission approved the project by adopting the required findings and conditions of approval as identified in Attachment A.

Any interested party aggrieved by the determination of the Planning Commission has the right of appeal to the Board of Supervisors within ten (10) business days from such date of determination. The appeal period for this matter will end at 5:00 p.m. on **October 28, 2015.**

Please direct any questions regarding this matter to James Castañeda, Project Planner, at 650/363-1853 or Email: jcastaneda@smcgov.org. To provide feedback, please visit the Department's Customer Survey at the following link: http://planning.smcgov.org/survey.

Sincerely,

Janneth Lujan
Planning Commission Secretary

Pcd1014_jl (item 2, ascensionheights).docx

cc: Department of Public Works
Building Inspection Section
Environmental Health Division
Cal-Fire
County Assessor
County Geologist
Parks and Recreation
Planning Director, City of Hillsborough
Planning Director, City of San Mateo
California Water Service Company
Crystal Springs County Sanitation District
San Mateo-Foster City School District
San Mateo Union High School District
John O'Rourke
Baywood Park Homeowners Association

County of San Mateo - Planning and Building Department

ATTACHMENT I

ATTACHMENT I

San Mateo County

Application for Appeal

Planning and Building Department

☐ To the Planning Commission

☑ To the Board of Supervisors

County Government Center ▪ 455 County Center, 2nd Floor
Redwood City ▪ CA ▪ 94063 ▪ Mail Drop PLN 122
Phone: 650 ▪ 363 ▪ 4161 Fax: 650 ▪ 363 ▪ 4849

1. Appellant Information

Name: BaywoodParkHOA
Laurel Nagle, co-president

Phone,

Address: 1538 Parrott Drive
San Mateo

Zip: 94402

RECEIVED
OCT 28 2015
San Mateo County
Planning Division

2. Appeal Information

Permit Numbers involved:

Project PLN2002-00517
AscensionHeights proposal

I hereby appeal the decision of the:

- ☐ Staff or Planning Director
- ☐ Zoning Hearing Officer
- ☐ Design Review Committee
- ☑ Planning Commission

made on 10/14 20 15, to approve/deny the above-listed permit applications.

I have read and understood the attached information regarding appeal process and alternatives.

☑ yes ☐ no

Appellant's Signature: Laurel Nagle

Date: Oct 28, 2015

3. Basis for Appeal

Planning staff will prepare a report based on your appeal. In order to facilitate this, your precise objections are needed. For example: Do you wish the decision reversed? If so, why? Do you object to certain conditions of approval? If so, then which conditions and why?

Yes, we wished the decisions be reversed.

The Baywood Park Homeowners Association ("Baywood") appeals the San Mateo County Planning Commission's October 14, 2015 approval of (1) a Major Subdivision, (2) a Grading Permit, (3) certification of a Final Environmental Impact Report, and (4) all related approvals for the Ascension Heights Subdivision, project file # PLN2002-00517 (Ascension Heights development or "Project"). The Planning Commission's approval of the Project violated state and local law, including but not limited to the California Environmental Quality Act, and constituted an abuse of discretion for reasons set forth in prior submissions and public testimony including but not limited to comment letters submitted by Shute Mihaly & Weinberger dated February 24, 2015, March 24, 2015 and October 13, 2015. Baywood urges the Board of Supervisors to reverse the Planning Commission's actions and deny the project.

SHUTE, MIHALY & WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

WINTER KING
Attorney
king@smwlaw.com

October 13, 2015

Via E-Mail and U.S. Mail

San Mateo County Planning Commission
c/o Steve Monowitz, Community
Development Director
County Office Building
455 County Center
Redwood City, CA 94063
E-Mail: planning-commission@smcgov.org

Re: Ascension Heights Subdivision Project

Honorable Members of the San Mateo County Planning Commission:

This firm represents Baywood Park Homeowners' Association ("Baywood") with respect to the proposed Ascension Heights Subdivision Project ("Project"). As we have commented in the past, Baywood has serious concerns about the environmental and community impacts of the proposed Project and about the adequacy of the environmental review prepared for it. The Planning Commission echoed many of these concerns at the last hearing on this project, including the Project's excessive density, aesthetic and traffic safety impacts, and inappropriate, gridlike design. The Planning Commission has also repeatedly urged the Project applicant, San Mateo Real Estate, Inc. ("Applicant") to sit down and work with the community to resolve these concerns.

The Applicant has not addressed the concerns raised by Baywood and the Planning Commission. Nor have the flaws in the environmental impact report ("EIR") been remedied. Instead, the Applicant has submitted its own "responses" to Baywood's comments, which, far from demonstrating any intention to work with members of the community, dismiss their concerns as "emotional." The Planning Commission was correct to demand more community outreach from the Applicant.

Moreover, the California Environmental Quality Act ("CEQA") requires more than the vague project description and deferred mitigation contained in the EIR. After reviewing the revised FEIR issued in August, we conclude, once again, that it is

inadequate under CEQA. In fact, we find at least 10 discrete legal deficiencies: deficient analysis and/or mitigation of impacts in 7 different impact areas, and; at least 3 inconsistencies between the evidence and the findings required by CEQA and the Subdivision Map Act.

I. Neither the Applicant's Proposed Changes to the Project Nor Changes to the EIR Remedy the Significant CEQA Violations Identified by Baywood.

Since this Project was originally proposed, members of the community surrounding the Project site, including Baywood and individual homeowners, have consistently reviewed and commented on the Project materials, environmental analyses, and staff reports issued by the Applicant and the County for this Project. In February, Baywood retained this firm to submit comments on Baywood's behalf prior to the February 28, 2015 Planning Commission meeting. These comments identified numerous flaws in the Revised Draft EIR and the Final EIR (together, "EIR"), including repeated and unlawful deferral of analysis and mitigation, failure to provide the public and decisionmakers with sufficient detail about the Project to analyze its impacts, insufficient or no evidence to support the EIR's conclusion that mitigation would reduce the Project's impacts to a level of insignificance, and repeated reliance on unenforceable mitigation measures.

In response, the Applicant has attempted to remedy these fundamental flaws with a series of "band-aids"—minor tweaks to the Project and new, but unenforceable, design "guidelines" that do little if anything to resolve the concerns expressed by the community and the Planning Commission. Because the EIR is still plainly inadequate under CEQA, the Planning Commission must not certify it.

A. Aesthetics

The FEIR continues the RDEIR's legally inadequate analysis of aesthetic impacts and attempts to hide this inadequacy by offering two cherry-picked visual simulations and a non-binding, preliminary landscape "sketch" depicting the location of future plantings. At no point does the FEIR explain how the as-yet preliminary sketch will reduce these impacts. Moreover, by providing simulations of only the *least problematic* viewpoints, the FEIR underscores the thinness of its analysis and the limited efficacy of the landscaping.

As an initial matter, there is no "presumption" that mitigation measures will be effective in reducing impacts to less than significant levels. *Cf.* Attachment P to Staff

Report at 4 ("There is a presumption that the mitigation measure(s) developed by the County will be effective."), 26 (same). It is long-settled and uncontroversial that the efficacy of mitigation measures must be supported by "substantial evidence." *See Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal.3d 376, 407, 421-22. Here, the County has failed to provide evidence, let alone substantial evidence, that the proposed mitigation will reduce the significance of the Project's aesthetic impacts.

The visual simulations in the FEIR plainly show the new residences dominating the public viewpoints. FEIR at 4.1-10 through 12. The FEIR admits that this change constitutes a significant impact. FEIR at 4.1-13. Yet in response to these admittedly significant impacts, the FEIR proposed two preliminary plans—a landscape plan and a tree replacement plan—the details of which were not included in the FEIR. After Baywood criticized the EIR's lack of detail on this topic, the County revised the EIR to include two new visualizations that purport to show the effect of the landscape plan on vistas in the Project area.

The new visualizations, however, depict areas where the Project's visual impacts will be the least significant. One visualization depicts a trail in the open space, undeveloped portion of the Project site (Staff Report Attachment E-1), and the other depicts a view from Bel Aire Road, which would also be buffered from the Project by undeveloped open space (Staff Report Attachment E-2). By failing to illustrate the effect of the landscape plan from all vantage points showing a significant impact—including views from Parrot Drive—the FEIR continues to hide the visual impacts of the project and provides no evidence that the landscape plan will reduce visual impacts to less than significant levels. The FEIR should be revised to include visual simulations showing if and how implementation of the landscape plan would reduce the Project's significant aesthetic impacts from each of the public vantage points included in the FEIR. *See* FEIR at 4.1-10 through 12 (containing seven additional vantage points that were not updated to include the effect of the landscape plan).

Contrary to the letter submitted by the Project proponent, the landscape plan remains in "preliminary" draft stages (*see* Staff Report at 3, Attachment D)—it has not been "developed" and the existence of a preliminary sketch does not "moot[]" Baywood's concerns about aesthetic impacts. Staff Report Attachment P at 6. The final landscaping plan required by Condition 8.a could be different from the preliminary sketch offered in the FEIR.

This is classic deferral of mitigation. An EIR generally may not defer evaluation of mitigation to a later date. CEQA Guidelines[1] § 15126.4(a)(1)(B). For example, an EIR is inadequate if the mitigation of a project's significant effects "largely depend[s] upon management plans that have not yet been formulated, and have not been subject to analysis and review within the EIR." *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670. Moreover, without a concrete, developed landscape plan, and evidence showing it will effectively mitigate the Project, the County cannot make the findings to support the EIR's conclusion that the Project's aesthetic impacts will be less than significant. *See* infra.

Under CEQA, proposed mitigation measures must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2). Similarly, any proposed mitigation must provide assurance that such implementation will in fact occur. *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186-87. These requirements ensures "that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded." *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 (italics omitted); CEQA Guidelines § 15126.4(a)(2). The landscape plan, by contrast, is a moving target.

Moreover, the FEIR fails to explain how the plan would reduce the otherwise significant visual impacts disclosed in the FEIR. Mitigation Measure 4.1-1a, which describes the future landscape plan, lacks certain and definitive standards or performance benchmarks. To be enforceable, a mitigation measure must be detailed and specific. California courts have clarified that an EIR is inadequate where its proposed mitigation measures are so undefined that it is impossible to evaluate their effectiveness. *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79. In particular, a mitigation measure must include criteria or performance standards against which the mitigation's actual implementation can be measured. *See San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 670 (*"County of Merced"*). The reader must be able to discern what steps will be taken to mitigate the project's impacts. *Id.* Without such detail, there is no way for decision-makers and the public to weigh whether the proposed measures will sufficiently mitigate a project's impacts, causing the EIR to fail in its core, informational purpose.

[1] 14 California Code of Regulations § 15000 *et seq*.

Instead, the Measure 4.1-1a states that vegetation will provide "opaque screening" between the Project and Parrot Drive. For example, opaque screening that is only a few feet tall would satisfy the measure without doing anything to mitigate the visual impact of the Project. Without some sort of standard by which to evaluate the extent or quality of this screening, the measure remains standardless and unenforceable.

The tree replacement plan is similarly vague and unenforceable. Curiously, Mitigation Measure 4.1-1b states that the future tree replacement plan "shall not exceed the following specifications" before proceeding to list various standards. FEIR at 4.1-16. This phrasing suggests that the mitigation measure sets a *ceiling* on how much mitigation can be required without setting a corresponding *floor* to guarantee that any trees are replaced. As written, the measure requires no mitigation at all with respect to tree replacement. Furthermore, whatever mitigation the measure requires is set to expire within 5 years. *Id.* The document contains no analysis of what will happen to views from nearby areas after five years when no one is legally obligated to maintain the trees. This is improper. An EIR must consider the impacts a project will generate over its entire lifespan. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431.

The FEIR fails to explain whether and how the landscape plan and tree replacement plan are consistent with the County's Water Efficient Landscape Ordinance, which requires the completion of various water usage worksheets and the calculation of a maximum applied water allowance. Moreover, pursuant to Executive Order B-29-15 (attached as Exhibit A), the County is legally-obligated to update its Water Efficient Landscape Ordinance by December 1, 2015 in an effort to deal with the current drought. The Water Commission has already updated the state's model landscaping ordinance, and the FEIR ought to ensure that these landscaping plans will not conflict with these new regulations.

Without explicitly relying upon it as a mitigation measure, the FEIR notes that the Ascension Heights Design Handbook will ensure that the Project is consistent with the architectural themes in the surrounding neighborhoods. FEIR at 4.1-14 (citing Appendix J). The Handbook contains general height, massing, and setback guidelines. These Design Guidelines, however, are filled with unenforceable, hortatory statements. Condition 18 requires only that development within the Project adhere to the 28-foot height limitation and that "[d]welling designs shall incorporate styles presented as part of the 'Ascension Heights Design Guidelines' proposed by the applicant and presented to the Planning Commission on October 24, 2015." Staff Report at 31. Once again, however, there is no evidence in the EIR demonstrating that compliance with the Design

Guidelines will reduce the Project's impacts to a level of insignificance. Beyond the suggested styles, the Project is not subject to any design review by the County. Staff Report at 6. Therefore it is misleading for the Project proponent to suggest that "legally binding local planning regulations and policies ensure aesthetic compatibility of the proposed Project with its surroundings." Staff Report, Attachment P at 7. These policies do not include any design review.

In the same paragraph in which staff endorses a height restriction that is lower than the one imposed by the County Code, the staff report claims that the County cannot impose any design requirements on the Applicant that are not part of the County Code. Staff Report at 6. This is incorrect. Under CEQA, the County is required to impose all mitigation that is feasible and necessary to reduce impacts to a level of insignificance. Thus where, as here, a project will have significant aesthetic impacts, the County must mitigate those impacts by imposing design requirements. CEQA's core mandate is that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354 (quoting Pub. Res. Code § 21002). CEQA requires lead agencies to identify and analyze *all feasible mitigation*, even if this mitigation will not reduce the impact to a level of insignificance. CEQA Guidelines § 15126.4(a)(l)(A). Such measures should include those identified in Baywood's previous comment letters, including the use of a vegetated buffer zone between existing homes along Parrot Drive and the Project site, and a limitation on the maximum square footage of Project homes to a size that is truly consistent with the character of the neighborhood.

Finally, the FEIR and the Project proponent apply an improper baseline for aesthetic impacts. Under CEQA, the lead agency must compare the Project to existing conditions at the Project site—not to conditions at other sites nearby. As a general rule under CEQA, a project's impacts must be compared against the baseline conditions on the project site at the time of the analysis. *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 455. Here, the existing site is open space that the FEIR classifies as "an area that is currently valued as natural scenery," but the Project would transform 40% of that space into "urban development." FEIR 4.1-14. In order to downplay the significant contrast, the FEIR pivots to an analysis of the aesthetic characteristics of nearby sites. The fact that the area around the Project site

consists of primarily single-family residences does not mitigate the total and irreversible transformation of the open space occupying the Project site[2].

B. Biological Resources

The previous version of the EIR repeatedly deferred both analysis of the Project's impacts on special status species and development of mitigation measures for these impacts. In tacit recognition that this approach violated CEQA, and at the request of the California Department of Fish and Wildlife (in what appears to be a last-minute consultation), the biological resources consultant for the EIR conducted additional surveys this spring.[3] Staff Report, Attachment P. However, the additional information provided in the revised EIR fails to address the Project's impacts to onsite trees subject to the County's Significant Tree Ordinance.

Specifically, the EIR fails to indicate how many protected trees are on the Project site. *See* FEIR at 4.3-26. Instead, the EIR indicates only the total number of trees to be removed. *Id*. The result is that the public and decisionmakers cannot know if the Project will impact one protected tree or 43. This omission stems from the Project's deferral of the tree survey necessary to disclose this information.

[2] The FEIR and the Applicant appear to misunderstand the law regarding baseline conditions. In response to a comment about the impact of headlights shining into a neighbor's bedroom windows, the Applicant quotes the EIR's conclusion that such an impact would be less than significant because "such lights are 'common and necessary light sources for residential areas by the County,' and '[t]hese types of light sources that would be introduced as a result of the Proposed Project are frequent in the neighboring residential developments and would not constitute a significant new source of light.'" Staff Report, Attachment P at 33-34 (quoting DEIR at 4.1-18). Again, this comparison is irrelevant. The County must compare the Project's impacts to existing conditions at the Project site, not to conditions elsewhere. *See Neighbors for Smart Rail*, 57 Cal.4th at 455.

[3] Rather than acknowledging that the prior version of the EIR was flawed and that the community was correct to demand a thorough study of the Project's impacts before the County considers whether to approve it, the Applicant asserts that Baywood's comments were "patently false." Such comments are further evidence of the Applicant's blatant refusal to work cooperatively with the community, as the Planning Commission has repeatedly urged.

Moreover, in so much as the EIR's mitigation measures will only be implemented "to the extent feasible", they remain unenforceable. FEIR at 4.3-27. Counsel for the Applicant is incorrect when they assert to the contrary. Staff Report, Attachment P at 10. CEQA requires that a lead agency adopt all feasible mitigation measures that can substantially lessen a project's significant impacts. Pub. Res. Code § 21002. As discussed above, the agency must ensure that these measures are "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code §§ 21002, 21081.6(b); CEQA Guidelines §§ 15002(a)(3), 15126.4(a)(2); *City of Marina v. Bd. of Trustees of the Cal. State Univ.* (2006) 39 Cal.4th 341, 359, 368-69; *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261; CEQA Guidelines § 15126.4(a)(2).

Here, the EIR mitigation measures related to tree removal specify that they will only be implemented "to the extent feasible." FEIR at 4.3-27. The EIR doesn't indicate an alternative measure if the proposed measure is not feasible. Thus, measures requiring steps "to the extent feasible" are not enforceable and cannot be relied upon as reducing impact to less than significant. *See Sacramento Old City Assn.v City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1027.

C. Air Quality & GHG

The Project proponent argues that the Project's greenhouse gas emissions will be mitigated by the use of "green building and performance measures" and that "[s]ustainable building strategies would be integrated into the Project to the greatest extent feasible." Staff Report, Attachment P at 15. As noted above, voluntary measures like these cannot constitute proper mitigation. Under CEQA, mitigation measures must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2). Neither the FEIR nor the staff's draft conditions of approval contain any conditions requiring the project to use these "green building measures." In any event, the measures themselves are merely a suggestion, given that they may be incorporated or ignored depending on their feasibility.

As the FEIR acknowledges, construction activities at the Project site could cause significant and harmful air quality impacts in the form of emissions of NOx, PM10 and PM2.5. FEIR at 4.2-19 and 20. Despite this health risk, the FEIR fails to consider a requirement that the Project use cleaner-burning diesel engines for construction activities. The Project's emissions of diesel particulate matter could feasibly be reduced through the use of Tier 4 engines. *Cf.* Exhibit B (excerpts of Chapter 4 of the LAX Northside Plan

Update FEIR containing mitigation measures requiring the use of Tier 4 construction equipment or Tier 3 equipment with emissions control retrofitting). The FEIR currently only requires the use of Tier 2 heavy duty construction equipment. FEIR at 4.2-21. CEQA requires lead agencies to analyze all feasible mitigation measures, and the County failed to do so here. CEQA Guidelines § 15126.4(a)(l)(A).

D. Hydrology

Following the last Planning Commission meeting on the Project, Baywood acquired a copy of the hydrology technical report by Lea & Braze Engineering, Inc. dated March, 2010 (Lea and Braze Report). The report provides additional details about the proposed Project's stormwater facilities. However, the report leaves unanswered questions about the Project's impacts related to runoff and potential flooding.

The Lea and Braze Report provides calculations of the net increase in stormwater flows resulting from the construction and provides information on the amount of flow each element of the Project's system can retain. Lea and Braze report at 6-9. The report states that the proposed stormwater system can retain and meter release the post-construction flow to the pre-development rate. Lea and Braze at 2. However, it appears that the proposed system provides an inadequate amount of retention capacity to accommodate the estimated increase in flows. For example, for lots 8,9,13, and 14, pre-construction runoff flow is 0.19 cubic feet per second (cfs), and the estimated post-construction flow is 0.35 cfs. This results in a net increase of 0.16 cfs, yet the proposed system retains and meters release of only 0.10 cfs, a shortfall of 0.06 cfs. Similar discrepancies are present in all the calculations for all eight of the proposed retention systems. Lea and Braze report at 6-9. The report fails to explain these discrepancies

Moreover, despite the fact that the Lea and Braze Report was prepared in 2010, the County failed to provide the hydrology technical appendix until after the Planning Commission hearing for the Project. CEQA requires that pertinent information be contained in the EIR. "Decision-makers and the general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental assumptions that are being used for purposes of the environmental analysis." San Joaquin Raptor Rescue Center, 149 Cal.App.4th at 659; see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 ("The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project.") and *California Oak Found. v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1239 (relevant information may not be

"buried in an appendix"). This omission resulted in an environmental document that did not provide the supporting analysis for its conclusion that the Projects runoff impacts would be mitigated to a level less than significant.

Finally, the hydrology report relies upon the existence of a so-called "creek" to accommodate flows from storms that exceed the 10-year storm flows. Yet, as depicted in the photographs and diagrams submitted by Baywood, the "creek" appears to be nothing more than a shallow indentation. Neighbors are justifiably concerned that the indentation is not large enough to accommodate larger flows, and it is far from clear that the consultants preparing the hydrology report were aware of the true nature of this feature..

E. Noise

The FEIR continues to ignore the admittedly significant noise impacts associated with the Project. In a nutshell, the FEIR concludes that, because the anticipated construction noise is exempt from the County's nuisance ordinance, that noise—no matter how loud it is—will not constitute a significant impact on nearby residences. FEIR at 4.8-12 and 13. Given the public health impacts associated with noise, this endorsement of unrestricted noise levels during most of the day is unacceptable. *See, e.g.*, Traffic Noise Reduction in Europe, attached as Exhibit C.

Both the county's code and other state and federal noise guidelines serve as the basis for the FEIR's significance thresholds for noise impacts. FEIR at 4.8-10 and 11. However the County's code provision is not a stand-alone threshold of significance for determining environmental impacts, but a nuisance statute which makes it a crime to create noises above a certain level. See San Mateo County Code § 4.88.350. Construction activities during specified hours are exempt from this nuisance statute, but the exemption does not specify acceptable levels of construction noise. Id. § 4.88.360.

Inexplicably, the FEIR and Project proponent admit that the Project will emit noise up to 85 decibels—louder than a power lawn mower at 20 feet (FEIR 4.8-2)—and exceed the significance threshold, causing a potentially significant impact. FEIR at 4.8-13. Yet because construction activities are exempt from *nuisance* liability, the EIR concludes that the noise impacts will be less than significant. *Id*. This analysis patently violates CEQA, which requires lead agencies to analyze the actual, on-the-ground impacts of a project, not its consistency with nuisance laws.

The Applicant doubles down on this nonsensical application of CEQA, arguing that as long as the Project complies with "existing law, regulations or ordinances"

additional mitigation and analysis are unnecessary. Staff Report, Attachment P at 5. But here, emitting unmitigated construction noise is not complying with a regulation; it is simply conducting an activity that is exempt from nuisance liability.

Moreover, the Applicant's assertion is also faulty as a matter of law. Merely requiring compliance with agency regulations does not conclusively indicate that a proposed project would not have a significant and adverse impact. In *Kings County Farm Bureau*, for example, the court found that the fact that the EPA and the local air pollution control district had issued the necessary air emission permits for the construction of a coal-fired cogeneration plant did not nullify the CEQA requirement that the lead agency analyze the significant air quality impacts of the entire project. (1990) 221 Cal.App.3d 692, 712-22.

Here, although the FEIR describes existing noise conditions, it does not analyze the Project's impacts against them. Instead, it measures impacts against what the Applicant and County appear to claim is a regulatory noise standard. This approach has been soundly rejected by Courts. *See, e.g., Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350 (EIR inadequate where the document compared the project's impacts against the existing general plan, rather than the existing environment); *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 320-23.

The County's failure to analyze the Project's noise impacts against a baseline of existing environmental conditions is a glaring violation of CEQA, and undermines the FEIR's entire discussion of noise impacts and mitigation. *Communities for a Better Environment* is instructive. In that case, the agency attempted to use the total air emissions a refinery was allowed under an existing permit as the baseline for analyzing the impacts of expanding the refinery' operations, even though the refinery was in fact emitting below permitted levels. The California Supreme Court rejected this approach. Citing the CEQA Guidelines and quoting the extensive caselaw on this issue, the Court held that the baseline of "existing physical conditions in the affected area" meant "real conditions on the ground . . . rather than the level of development or activity that *could* or *should* have been present according to a plan or regulation." *Id.* at 321 (internal quotation marks and citations omitted; emphases in the original). Thus, the County failed to comply with CEQA by considering the Project's impacts only against the County code's nuisance ordinance exemption for construction work, and not against existing ambient noise levels in the Project area. *See also Berkeley Keep Jets Over the Bay Com.*, 91 Cal.App.4th at 1381 (EIR's noise analysis was inadequate where the threshold would allow the project

to increase noise levels up to 64.9 dB CNEL without necessitating a finding of significant impact).

The cases cited by the Project proponent do not stand for the proposition that regulatory compliance is sufficient mitigation. Rather they simply stand for the unsurprising proposition that compliance with other regulations which independently require an agency to reduce impacts to a less than significant level can be considered proper mitigation. *See Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 234 Cal.App.4th 214, 243 (citing *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 945-46) (mitigation requiring compliance with separate Endangered Species Act protections did not constitute improper deferral); *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 593-594 (holding that where, unlike the Ascension Project, the project in question was subject to "extensive" design review, compliance with that regulatory process could constitute sufficient mitigation).

While lead agencies are granted some discretion in selecting thresholds of significance, they are not permitted to choose thresholds that foreclose consideration of other evidence tending to show the environmental effect may be significant. *Protect The Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 ("[T]hreshold[s] of significance cannot be applied in a way that [] foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant."). The reason for this rule is made plain here: If the County could use the nuisance exemption as a threshold of significance, then construction noise of hundreds of decibels could take place all day, five days a week in a quiet neighborhood but would nonetheless be considered an insignificant environmental impact. In effect, the FEIR's logic means that no construction noise can ever constitute a significant impact—a result that turns CEQA on its head.

F. Traffic

The Project continues to pose unmitigated, significant traffic hazards to the surrounding community. *See* FEIR at 4.11-10 (noting the potential to substantially increase hazards due to the design of the new private street and proposed intersection with Bel Aire Drive). The proposed mitigation of these hazards remains unenforceable and voluntary. The words "shall" or "must" do not appear anywhere in Mitigation Measure 4.11-4. The Project proponent claims that the FEIR's use of the word "ensure" in its description of the purpose of Mitigation Measure 4.11-4 suggests that the measure is mandatory. However, simply because the FEIR characterizes the measure as "included to ensure a safe sight distance" does not mean the measure actually requires safe sight

distances. Indeed, the plain language in the measure is suggestive, not mandatory. Without any legally binding conditions or some other assurance that the mitigation will be implemented, the mitigation is deficient under CEQA. Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2); *Anderson First Coalition*, 130 Cal.App.4th at 1186-87.

Furthermore, the revised FEIR contains a new design layout for the intersection as depicted in Attachment C to the Staff Report. While the Staff Report asserts that staff has reviewed this new alignment for safety impacts, the FEIR does not contain this analysis or any explanation of why the change would not result in increased impacts.

II. The FEIR Must Be Recirculated

Because of the inadequacies discussed above, additional information and analysis must be added to the FEIR. Moreover, the staff report has already added new information to the FEIR without an opportunity for public comment on the new materials (e.g. the hydrology report, new "Design Guidelines" that will, according to Baywood's analysis, increase aesthetic impact from Parrott Ave.). Both of these factors require recirculation of the FEIR. CEQA requires lead agencies to prepare and recirculate a supplemental draft "[w]hen significant new information is added to an environmental impact report" after public review and comment on the earlier draft EIR. Pub. Res. Code § 21092.1. The opportunity for meaningful public review of significant new information is essential "to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom." *Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors* (1981) 122 Cal.App.3d 813, 822; *see also City of San Jose v. Great Oaks Water Co.* (1987) 192 Cal.App.3d 1005, 1017. An agency cannot simply release a draft report "that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review." *Mountain Lion Coalition v. California Fish and Game Comm'n* (1989) 214 Cal.App.3d 1043, 1052.

In order to cure the egregious flaws in the FEIR identified in this letter, the County must obtain substantial new information to adequately assess the proposed Project's environmental impacts, and to identify effective mitigation and alternatives capable of alleviating the Project's significant impacts. This new information will clearly necessitate recirculation. CEQA requires that the public be given a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated EIR.

III. CEQA Findings

Under CEQA, the lead agency must make findings, supported by substantial evidence, demonstrating how the mitigation measures adopted by the agency will actually reduce environmental impacts to a level of insignificance. *See* CEQA § 21002, 21002.1(b), 21081; Guidelines §§ 15091(a), 15091(b), 15093(b); *see also Uphold Our Heritage v. Town of Woodside*, 147 Ca. App. 4th 587 (2007). In so doing, the agency must reveal the "analytical route" between the evidence and the findings—in other words, they must explain how the evidence supports the finding of insignificance. *Topanga Ass'n for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515. The proposed CEQA findings contained in the Staff Report fail to reveal that route in several instances.

For example, in finding that the Project's aesthetic impacts will be insignificant after mitigation, the Staff Report explains that, despite the removal of more than half of the trees on the site and the total transformation of nearly half of the land area to urban development, the impacts will be less than significant because the "surrounding area is primarily single-family residential neighborhoods." Staff Report, Attachment O-2 at 4. As explained above, this logic misses the point. While the character of the broader area might not change, the visual character of the Project site will change dramatically. Moreover, the findings do not event attempt to explain how the (preliminary) landscape plan will reduce impacts to views from nearby homes.

Similarly, the findings regarding noise impacts do not explain how the mitigation measures will reduce impacts to insignificant levels. Rather than revealing the analytical route, the findings simply decline to analyze how significant the impacts will be by claiming that because construction noise is exempt from the County's nuisance ordinance any noise produced in this residential neighborhood—regardless of its volume—would be an insignificant impact. Staff Report, Attachment O-2 at 23-24.

IV. Subdivision Map Act

Approval of the Project requires approval of a tentative subdivision map, which in turn must be consistent with the local general plan. *See* Gov't Code §§ 66473.5; 66474; *see also Friends of "B" Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 998 (Subdivision Map Act expressly requires consistency with general plan); San Mateo County Subdivision Regulations § 7013(3)(b). Among other things, the County's Subdivision Regulations require the County to deny a tentative map if it finds that the subdivision "is not consistent with applicable general and specific plans" or the site is not

"physically suitable" for the type or proposed density of development. San Mateo County Subdivision Regulations § 7013(3)(b)(1), (3), (4).

Neither the revisions to the FEIR nor the letter submitted by the Project proponent adequately explain why General Plan Policies 15.20(a)-(b) do not apply to the Project. These policies direct the County to avoid siting structures in "areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties." San Mateo County General Plan Policy 15.20(a).

Baywood reiterates the arguments it made in its March 24, 2015 letter to the Planning Commission, namely that staff are applying the definition of "geotechnical hazard area" too narrowly. The General Plan defines "geotechnical hazards" as "non-seismic unstable conditions, including but not limited to landsliding, cliff retrenchment, erosion, subsidence, soil creep . . . ." It then defines "geotechnical hazard areas" as "areas that meet the definition of geotechnical hazards, *including but not limited to* . . . [t]he areas illustrated on the Natural Hazards map as Alquist-Priolo Special Studies Zones, Tsunami and Seiche Flooding Areas, Coastal Cliff Stability Areas and Areas of High Landslide Susceptibility." General Plan Policy 15.9 (emphasis added). Given this definition, which on its face applies to more than just areas within the Alquist-Priolo Special Studies Zones and other formally designated areas, Policies 15.20(a) and (b) appear to apply to the Project site. At no point in this administrative process have staff or the Project proponent explained why this plain reading of the General Plan does not apply to a site with slopes greater than 30% where significant erosion is likely to occur.

V. Denial Findings

At the last Planning Commission hearing on this Project, the Commission clearly requested that staff return to the Commission with findings in support of Project denial. Baywood promptly provided staff and the Commission with draft findings, based on evidence in the record, that would support denial. In its report to the Commission, staff provided only the most cursory denial findings, with few or no references to evidence in the record in support. Baywood encourages the Planning Commission to follow through on its earlier decision to deny the Project, but also urges the Commission to add to staff's denial findings in support. For the Commission's convenience, we are reattaching our proposed denial findings here.

VI. Conclusion

For all of these reasons, Baywood urges the Planning Commission to deny the Project as currently proposed and to decline to certify the EIR.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Winter King

Attachments:
Exhibit A: Executive Order B-29-15
Exhibit B: Excerpt of LAX Northside Plan Update FEIR
Exhibit C: Traffic Noise Reduction in Europe
Exhibit D: Letter from W. King to Planning Commission with Proposed Denial Findings (March 24, 2015)
Exhibit E: Letter from W. King to Planning Commission (Feb 24, 2015)

cc: Baywood Park Homeowners' Association

714396.4

EXHIBIT A

Executive Department

State of California

EXECUTIVE ORDER B-29-15

WHEREAS on January 17, 2014, I proclaimed a State of Emergency to exist throughout the State of California due to severe drought conditions; and

WHEREAS on April 25, 2014, I proclaimed a Continued State of Emergency to exist throughout the State of California due to the ongoing drought; and

WHEREAS California's water supplies continue to be severely depleted despite a limited amount of rain and snowfall this winter, with record low snowpack in the Sierra Nevada mountains, decreased water levels in most of California's reservoirs, reduced flows in the state's rivers and shrinking supplies in underground water basins; and

WHEREAS the severe drought conditions continue to present urgent challenges including: drinking water shortages in communities across the state, diminished water for agricultural production, degraded habitat for many fish and wildlife species, increased wildfire risk, and the threat of saltwater contamination to fresh water supplies in the Sacramento-San Joaquin Bay Delta; and

WHEREAS a distinct possibility exists that the current drought will stretch into a fifth straight year in 2016 and beyond; and

WHEREAS new expedited actions are needed to reduce the harmful impacts from water shortages and other impacts of the drought; and

WHEREAS the magnitude of the severe drought conditions continues to present threats beyond the control of the services, personnel, equipment, and facilities of any single local government and require the combined forces of a mutual aid region or regions to combat; and

WHEREAS under the provisions of section 8558(b) of the Government Code, I find that conditions of extreme peril to the safety of persons and property continue to exist in California due to water shortage and drought conditions with which local authority is unable to cope; and

WHEREAS under the provisions of section 8571 of the California Government Code, I find that strict compliance with various statutes and regulations specified in this order would prevent, hinder, or delay the mitigation of the effects of the drought.

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, in particular Government Code sections 8567 and 8571 of the California Government Code, do hereby issue this Executive Order, effective immediately.

IT IS HEREBY ORDERED THAT:

1. The orders and provisions contained in my January 17, 2014 Proclamation, my April 25, 2014 Proclamation, and Executive Orders B-26-14 and B-28-14 remain in full force and effect except as modified herein.

SAVE WATER

2. The State Water Resources Control Board (Water Board) shall impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016. These restrictions will require water suppliers to California's cities and towns to reduce usage as compared to the amount used in 2013. These restrictions should consider the relative per capita water usage of each water suppliers' service area, and require that those areas with high per capita use achieve proportionally greater reductions than those with low use. The California Public Utilities Commission is requested to take similar action with respect to investor-owned utilities providing water services.

3. The Department of Water Resources (the Department) shall lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes. The Department shall provide funding to allow for lawn replacement programs in underserved communities, which will complement local programs already underway across the state.

4. The California Energy Commission, jointly with the Department and the Water Board, shall implement a time-limited statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices.

5. The Water Board shall impose restrictions to require that commercial, industrial, and institutional properties, such as campuses, golf courses, and cemeteries, immediately implement water efficiency measures to reduce potable water usage in an amount consistent with the reduction targets mandated by Directive 2 of this Executive Order.

6. The Water Board shall prohibit irrigation with potable water of ornamental turf on public street medians.

7. The Water Board shall prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.

8. The Water Board shall direct urban water suppliers to develop rate structures and other pricing mechanisms, including but not limited to surcharges, fees, and penalties, to maximize water conservation consistent with statewide water restrictions. The Water Board is directed to adopt emergency regulations, as it deems necessary, pursuant to Water Code section 1058.5 to implement this directive. The Water Board is further directed to work with state agencies and water suppliers to identify mechanisms that would encourage and facilitate the adoption of rate structures and other pricing mechanisms that promote water conservation. The California Public Utilities Commission is requested to take similar action with respect to investor-owned utilities providing water services.

INCREASE ENFORCEMENT AGAINST WATER WASTE

9. The Water Board shall require urban water suppliers to provide monthly information on water usage, conservation, and enforcement on a permanent basis.

10. The Water Board shall require frequent reporting of water diversion and use by water right holders, conduct inspections to determine whether illegal diversions or wasteful and unreasonable use of water are occurring, and bring enforcement actions against illegal diverters and those engaging in the wasteful and unreasonable use of water. Pursuant to Government Code sections 8570 and 8627, the Water Board is granted authority to inspect property or diversion facilities to ascertain compliance with water rights laws and regulations where there is cause to believe such laws and regulations have been violated. When access is not granted by a property owner, the Water Board may obtain an inspection warrant pursuant to the procedures set forth in Title 13 (commencing with section 1822.50) of Part 3 of the Code of Civil Procedure for the purposes of conducting an inspection pursuant to this directive.

11. The Department shall update the State Model Water Efficient Landscape Ordinance through expedited regulation. This updated Ordinance shall increase water efficiency standards for new and existing landscapes through more efficient irrigation systems, greywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in turf. It will also require reporting on the implementation and enforcement of local ordinances, with required reports due by December 31, 2015. The Department shall provide information on local compliance to the Water Board, which shall consider adopting regulations or taking appropriate enforcement actions to promote compliance. The Department shall provide technical assistance and give priority in grant funding to public agencies for actions necessary to comply with local ordinances.

12. Agricultural water suppliers that supply water to more than 25,000 acres shall include in their required 2015 Agricultural Water Management Plans a detailed drought management plan that describes the actions and measures the supplier will take to manage water demand during drought. The Department shall require those plans to include quantification of water supplies and demands for 2013, 2014, and 2015 to the extent data is available. The Department will provide technical assistance to water suppliers in preparing the plans.

13. Agricultural water suppliers that supply water to 10,000 to 25,000 acres of irrigated lands shall develop Agricultural Water Management Plans and submit the plans to the Department by July 1, 2016. These plans shall include a detailed drought management plan and quantification of water supplies and demands in 2013, 2014, and 2015, to the extent that data is available. The Department shall give priority in grant funding to agricultural water suppliers that supply water to 10,000 to 25,000 acres of land for development and implementation of Agricultural Water Management Plans.

14. The Department shall report to Water Board on the status of the Agricultural Water Management Plan submittals within one month of receipt of those reports.

15. Local water agencies in high and medium priority groundwater basins shall immediately implement all requirements of the California Statewide Groundwater Elevation Monitoring Program pursuant to Water Code section 10933. The Department shall refer noncompliant local water agencies within high and medium priority groundwater basins to the Water Board by December 31, 2015, which shall consider adopting regulations or taking appropriate enforcement to promote compliance.

16. The California Energy Commission shall adopt emergency regulations establishing standards that improve the efficiency of water appliances, including toilets, urinals, and faucets available for sale and installation in new and existing buildings.

INVEST IN NEW TECHNOLOGIES

17. The California Energy Commission, jointly with the Department and the Water Board, shall implement a Water Energy Technology (WET) program to deploy innovative water management technologies for businesses, residents, industries, and agriculture. This program will achieve water and energy savings and greenhouse gas reductions by accelerating use of cutting-edge technologies such as renewable energy-powered desalination, integrated on-site reuse systems, water-use monitoring software, irrigation system timing and precision technology, and on-farm precision technology.

STREAMLINE GOVERNMENT RESPONSE

18. The Office of Emergency Services and the Department of Housing and Community Development shall work jointly with counties to provide temporary assistance for persons moving from housing units due to a lack of potable water who are served by a private well or water utility with less than 15 connections, and where all reasonable attempts to find a potable water source have been exhausted.

19. State permitting agencies shall prioritize review and approval of water infrastructure projects and programs that increase local water supplies, including water recycling facilities, reservoir improvement projects, surface water treatment plants, desalination plants, stormwater capture, and greywater systems. Agencies shall report to the Governor's Office on applications that have been pending for longer than 90 days.

20. The Department shall take actions required to plan and, if necessary, implement Emergency Drought Salinity Barriers in coordination and consultation with the Water Board and the Department of Fish and Wildlife at locations within the Sacramento - San Joaquin delta estuary. These barriers will be designed to conserve water for use later in the year to meet state and federal Endangered Species Act requirements, preserve to the extent possible water quality in the Delta, and retain water supply for essential human health and safety uses in 2015 and in the future.

21. The Water Board and the Department of Fish and Wildlife shall immediately consider any necessary regulatory approvals for the purpose of installation of the Emergency Drought Salinity Barriers.

22. The Department shall immediately consider voluntary crop idling water transfer and water exchange proposals of one year or less in duration that are initiated by local public agencies and approved in 2015 by the Department subject to the criteria set forth in Water Code section 1810.

23. The Water Board will prioritize new and amended safe drinking water permits that enhance water supply and reliability for community water systems facing water shortages or that expand service connections to include existing residences facing water shortages. As the Department of Public Health's drinking water program was transferred to the Water Board, any reference to the Department of Public Health in any prior Proclamation or Executive Order listed in Paragraph 1 is deemed to refer to the Water Board.

24. The California Department of Forestry and Fire Protection shall launch a public information campaign to educate the public on actions they can take to help to prevent wildfires including the proper treatment of dead and dying trees. Pursuant to Government Code section 8645, $1.2 million from the State Responsibility Area Fire Prevention Fund (Fund 3063) shall be allocated to the California Department of Forestry and Fire Protection to carry out this directive.

25. The Energy Commission shall expedite the processing of all applications or petitions for amendments to power plant certifications issued by the Energy Commission for the purpose of securing alternate water supply necessary for continued power plant operation. Title 20, section 1769 of the California Code of Regulations is hereby waived for any such petition, and the Energy Commission is authorized to create and implement an alternative process to consider such petitions. This process may delegate amendment approval authority, as appropriate, to the Energy Commission Executive Director. The Energy Commission shall give timely notice to all relevant local, regional, and state agencies of any petition subject to this directive, and shall post on its website any such petition.

26. For purposes of carrying out directives 2–9, 11, 16–17, 20–23, and 25, Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division are hereby suspended. This suspension applies to any actions taken by state agencies, and for actions taken by local agencies where the state agency with primary responsibility for implementing the directive concurs that local action is required, as well as for any necessary permits or approvals required to complete these actions. This suspension, and those specified in paragraph 9 of the January 17, 2014 Proclamation, paragraph 19 of the April 25, 2014 proclamation, and paragraph 4 of Executive Order B-26-14, shall remain in effect until May 31, 2016. Drought relief actions taken pursuant to these paragraphs that are started prior to May 31, 2016, but not completed, shall not be subject to Division 13 (commencing with section 21000) of the Public Resources Code for the time required to complete them.

27. For purposes of carrying out directives 20 and 21, section 13247 and Chapter 3 of Part 3 (commencing with section 85225) of the Water Code are suspended.

28. For actions called for in this proclamation in directive 20, the Department shall exercise any authority vested in the Central Valley Flood Protection Board, as codified in Water Code section 8521, et seq., that is necessary to enable these urgent actions to be taken more quickly than otherwise possible. The Director of the Department of Water Resources is specifically authorized, on behalf of the State of California, to request that the Secretary of the Army, on the recommendation of the Chief of Engineers of the Army Corps of Engineers, grant any permission required pursuant to section 14 of the Rivers and Harbors Act of 1899 and codified in section 48 of title 33 of the United States Code.

29. The Department is directed to enter into agreements with landowners for the purposes of planning and installation of the Emergency Drought Barriers in 2015 to the extent necessary to accommodate access to barrier locations, land-side and water-side construction, and materials staging in proximity to barrier locations. Where the Department is unable to reach an agreement with landowners, the Department may exercise the full authority of Government Code section 8572.

30. For purposes of this Executive Order, chapter 3.5 (commencing with section 11340) of part 1 of division 3 of the Government Code and chapter 5 (commencing with section 25400) of division 15 of the Public Resources Code are suspended for the development and adoption of regulations or guidelines needed to carry out the provisions in this Order. Any entity issuing regulations or guidelines pursuant to this directive shall conduct a public meeting on the regulations and guidelines prior to adopting them.

31. In order to ensure that equipment and services necessary for drought response can be procured quickly, the provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, are hereby suspended for directives 17, 20, and 24. Approval by the Department of Finance is required prior to the execution of any contract entered into pursuant to these directives.

This Executive Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given to this Order.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 1st day of April 2015.

EDMUND G. BROWN JR.
Governor of California

ATTEST:

ALEX PADILLA
Secretary of State

EXHIBIT B

- **PDF AQ-8:** All off-road diesel-powered construction equipment greater than 50 horsepower shall meet, at a minimum, US EPA Tier 3 off-road emission standards. In addition, all off-road diesel powered construction equipment greater than 50 hp with engines meeting USEPA Tier 3 off-road emission standards shall be retrofitted with a CARB-verified Level 3 Diesel Emissions Control Strategies (DECS). Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. Wherever feasible, all off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards. In the event the Contractor is using off-road diesel-powered construction equipment with engines meeting the Tier 4 off-road emission standards and is already supplied with a factory-equipped diesels particulate filter, no retrofitting with DECS is required. Contractor requirements to utilize Tier 3 equipment or next cleanest equipment available will be subject to the provisions of LAWA Air Quality Control Measure 2"x" (part of LAX Master Plan Commitment LAX-AQ-2, LAX Master Plan – Mitigation Plan for Air Quality; Construction-Related Measures). LAWA will encourage construction contractors to apply for SCAQMD "SOON" funds to accelerate clean-up of off-road diesel engine emissions.
- **PDF AQ-9**: LAWA will provide informational materials to developers regarding building materials that do not require painting.
- **PDF B-18:** The proposed Project contractor shall utilize integrated pest/rodent management measures wherever feasible during construction in the LAX Northside Campus District, including efforts such as using pest-resistant or well-adapted native plant varieties; removing weeds by hand and avoiding the use of chemical pesticides, herbicides, and fertilizers; and maintaining the construction site free of unsealed food or open trash that could attract rodents.
- **PDF GHG-4:** Provide a minimum number of electric vehicle charging stations, which is equal to 5% of the total number of parking spaces.
- **PDF GHG-5:** Provide necessary infrastructure (wiring and plugs) at appropriate locations on the proposed Project site that can be used for electric landscaping equipment.
- **PDF GHG-6:** All off-road diesel-powered construction equipment greater than 50 horsepower shall meet, at a minimum, US EPA Tier 3 off-road emission standards. In addition, all off-road diesel powered construction equipment greater than 50 hp with engines meeting USEPA Tier 3 off-road emission standards shall be retrofitted with a CARB-verified Level 3 Diesel Emissions Control Strategies (DECS). Any emissions control device used by the Contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. Wherever feasible, all off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards. In the event the Contractor is using off-road diesel-powered construction equipment with engines meeting the Tier 4 off-road emission standards and is already supplied with a factory-equipped diesels particulate filter, no retrofitting with DECS is required. Contractor requirements to utilize Tier 3 equipment or next cleanest equipment available will be subject to the provisions of LAWA Air Quality Control Measure 2"x" (part of LAX Master Plan Commitment LAX-AQ-2, LAX Master Plan – Mitigation Plan for Air Quality; Construction-Related Measures). LAWA will encourage construction contractors to apply for SCAQMD "SOON" funds to accelerate clean-up of off-road diesel engine emissions.

EXHIBIT C

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Traffic noise reduction in Europe

Health effects, social costs and technical and policy options to reduce road and rail traffic noise

Report

Delft, August 2007

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For further information on this study, contact Eelco den Boer at CE.

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This report is printed on 100% recycled paper.

Preface

Millions of people in Europe are affected by transport noise. Transport noise annoys people, causes stress and illness and may sometimes even have a fatal impact. As a result, noise is very costly to society.

There are numerous cheap and relatively easy ways to reduce transport noise significantly. First of all, noise should be taken as seriously as other forms of pollution, as it is similarly damaging to human health. This year, 2007, is an important one for the future of noise policy. The European Commission is presenting a proposal for tightening car tyre noise emission limits, and in June 2007 the first noise maps of large agglomerations, main roads and railways were to be submitted to the Commission under the terms of the Environmental noise directive.

This reports describes the health effects of rail and road transport noise and presents a number of recommendations as to how to address them.

We would like to kindly thank the people who reviewed this report for their contributions. The comments of Rokho Kim of the WHO and Tor Kihlman of the Chalmers Institute of Technology were especially helpful in improving the overall quality of the report. We also thank Nigel Harle for his careful editing of the English.

Eelco den Boer
Arno Schroten

Contents

Summary

The main conclusions of this report are as follows:

Health effects and social costs

- Traffic noise has a variety of adverse impacts on human health. Community noise, including traffic noise, is already recognised as a serious public health problem by the World Health Organization, WHO.
- Of all the adverse effects of traffic noise the most widespread is simply annoyance.
- There is also substantial evidence for traffic noise disturbing sleep patterns, affecting cognitive functioning (especially in children) and contributing to certain cardiovascular diseases. For raised blood pressure, the evidence is increasing. For mental illness, however, the evidence is still only limited.
- The health effects of noise are not distributed uniformly across society, with vulnerable groups like children, the elderly, the sick and the poor suffering most.
- In 2000, more than 44% of the EU25[1] population (about 210 million people) were regularly exposed to over 55 dB of road traffic noise, a level potentially dangerous to health. In addition, 35 million people in the EU25 (about 7%) are exposed to rail traffic noise above 55 dB. Millions of people indeed experience health effects due to traffic noise. For example, about 57 million people are annoyed by road traffic noise, 42% of them seriously.
- A preliminary analysis shows that each year over 245,000 people in the EU25 are affected by cardiovascular diseases that can be traced to traffic noise. About 20% of these people (almost 50,000) suffer a lethal heart attack, thereby dying prematurely.
- The annual health loss due to traffic noise increased between 1980 and 2000 and is expected to increase up to 2020. In contrast, traffic safety has improved, following implementation of a variety of policy measures.
- At a conservative estimate, the social costs of traffic noise in the EU22[2] amount to at least € 40 billion per year (0.4% of total GDP). The bulk of these costs (about 90%) are caused by passenger cars and lorries.

Noise reduction options

- If noise-related problems are to be alleviated, they must be the subject of greater political focus. Vehicle noise emission limits have not been technology-forcing since their introduction and were last tightened in 1995. This means these limits have not been updated for twelve years, in stark contrast to vehicle air pollution emission standards, which have been tightened three times over the same period.
- Consequently, there has been no reduction in community exposure to noise. This is due to the lax limits in the EU Motor vehicle sound emission directive

[1] EU25 refers to EU27 except Cyprus and Malta.

[2] EU22 refers to EU27 except Cyprus, Estonia, Latvia, Lithuania and Malta.

and the Tyre/road directive, the fact that changes in test conditions have in practice led to even weaker limits, and increased traffic volumes.

- There is plenty of scope for reducing ambient noise levels by at least 3-4 dB(A) in the short term using currently available technology. Beyond 2012, year-on-year improvement targets (x dB(A) every y years) should be introduced, outlined well in advance to give industry time to adapt.
- In the case of both road and rail traffic, there are already vehicles/rolling stock available that are well within current noise standards. Besides the vehicles themselves, examples of silent tyres/wheels and road pavements/tracks show also room for noise reduction. At noise 'hotspots' additional, local measures can be implemented.
- The most cost-effective measures are those addressing the noise at-source. This includes noise from the engine, exhaust, mechanical systems and contact between tyres and road, or wheels and track. The associated costs are generally limited, for vehicles and tyres at least. There are signs that use of composite brake blocks on rail wagons also comes at a modest cost.
- Although an optimal noise control regime will always be a mix of local and at-source measures, the Commission should take responsibility for ensuring that the noise emissions of cars, tyres and railways are reduced significantly. These are the most cost-effective measures and their impact will be felt across Europe.
- When it comes to tightening noise standards and improving test procedures, prolonged discussions and political procedures are costing Europe dearly. If the EU does not come up with better policies soon, local measures will need to be taken, which are considerably more expensive than measures taken across the EU.

1 Introduction

Noise pollution consistently ranks high on the list of citizens' concerns. It is estimated that over half of Europe's population is exposed to unacceptable noise levels. Noise from road transport is the major source, followed by aircraft and railway noise. In its 6th Environmental Action Programme (2002-2012) the EU has set itself the objective of substantially reducing the number of people regularly affected by long-term average levels of noise. The aim of reducing noise exposure to acceptable levels has been repeated in the renewed Sustainable Development Strategy as well as in the transport White paper and its mid-term review. Despite all efforts in this direction, however, EU policy does not seem to recognise that noise is first and foremost a major environmental health issue.

Vehicle noise regulation is important, especially in light of growing traffic volumes and the proximity between transport infrastructure and residential and living areas. Every doubling of transport intensity increases noise levels by 3 dB(A). Vehicle noise regulation goes back to the 1970s, with tyre/road noise regulation added in 2001 and thereafter. In their present form, however, both sets of legislation are too liberal to have had any significant effect and the number of people exposed to ambient noise has consequently increased rather than declined.

This report highlights the scale and scope of the traffic noise problem, which affects a very substantial proportion of the European populace. It serves as a background report to a T&E brochure and is based on a thorough literature review. The report covers health effects and social costs, and reviews noise reduction policies and measures to reduce noise exposure. In conclusion, a number of recommendations for action are given. The report focuses on road and rail transport.

2 The health effects of traffic noise

In this chapter we first discuss the health impact of traffic noise, describing the various effects signalled and discussing the scientific evidence for each. We then report on the number of people exposed to traffic noise and the number likely to be affected by the respective health effects. Finally, we briefly review the evidence for traffic noise having an impact on animals and ecosystems.

2.1 WHO Community Noise Guidelines

Traffic is the most widespread source of environmental noise. Exposure to traffic noise is associated with a wide range of effects on human health and well-being. The World Health Organisation (WHO) recognises community noise, including traffic noise, as a serious public health problem, prompting it to publish guidelines on community noise in 1999 (Berglund et al., 1999). These guidelines present noise levels above which a significant impact on human health and/or well-being is to be expected. In 2007 an extension of the guidelines was published (WHO, 2007), focusing on the health impacts of night-time noise. Table 1 presents the relevant guideline values for specific environments. When multiple adverse health effects are identified for a given environment, the guideline values are set at the level of the lowest adverse health effect (the 'critical health effect').

Table 1 Selected values from the WHO Community Noise Guidelines and WHO Night Noise Guidelines

Specific environment	Critical health effect	Day: L_{Aeq} (dB(A)) Night: L_{night} (dB(A))	Time base (hours)
Day-time and evening noise			
Outdoor living area	Serious annoyance, daytime and evening Moderate annoyance, daytime and evening	55 50	16 16
Dwellings, indoor	Speech intelligibility and moderate annoyance, daytime and evening	35	16
School class rooms, and pre-schools, indoors	Speech intelligibility, disturbance of information extraction, message communication	35	During class
School playground, outdoor	Annoyance	55	During play
Hospital ward rooms, indoors	Sleep disturbance, daytime and evenings	30	16
Hospital, treatment rooms, indoors	Interference with rest and recovery	a	
Night-time noise			
At the façade, outside	Body movements, awakening, self-reported sleep disturbance	30	During the night

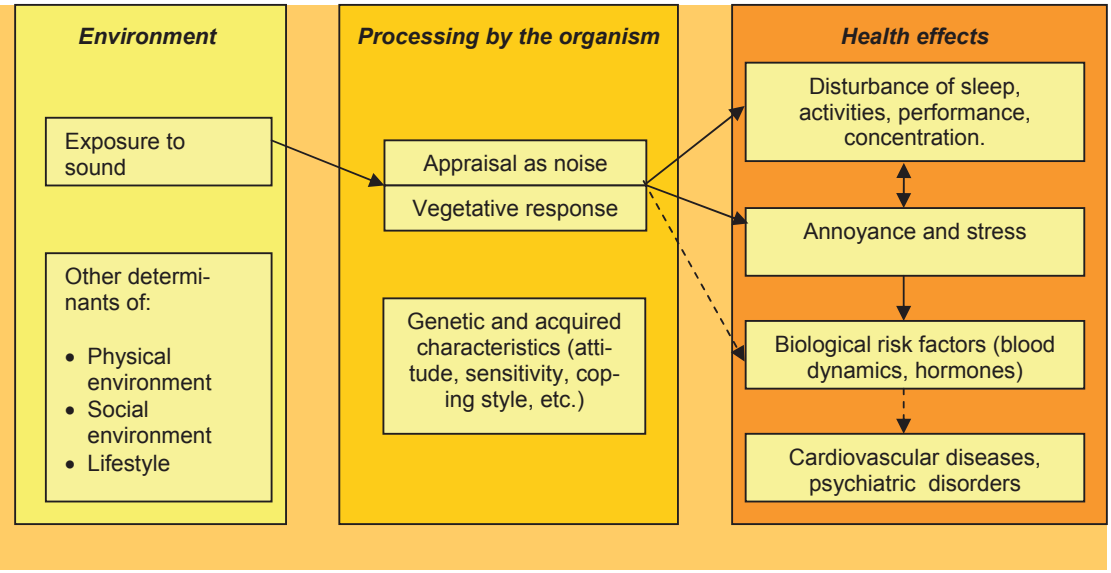
[a] As low as possible.

2.2 The relation between noise and human health

Traffic noise frequently exceeds the guideline values published by the WHO and those exposed to traffic noise consequently suffer an array of adverse health effects. These include socio-psychological responses like annoyance and sleep disturbance, and physiological effects such as cardiovascular diseases (heart and circulatory problems) and impacts on mental health (RIVM, 2004). In addition, traffic noise may also affect children's learning progress. Finally, prolonged, cumulative exposure to noise levels above 70 dB(A), common along major roads, may lead to irreversible loss of hearing (Rosenhall et al., 1990).

Figure 1 summarises the potential mechanisms of noise-induced health effects and their interactions. In the first place, noise exposure can lead to disturbance of sleep and daily activities, to annoyance and to stress. This stress can in turn trigger the production of certain hormones (e.g. cortisol, noradrenalin and adrenaline), which may lead to a variety of intermediate effects, including increased blood pressure. Over a prolonged period of exposure these effects may in their turn increase the risk of cardiovascular disease and psychiatric disorders. The degree to which noise leads to disturbance, annoyance and stress depends partly on individual characteristics, in particular a person's attitude and sensitivity to noise. Finally, the relation between noise and personal health and well-being is also influenced by external factors like physical and social environment and lifestyle.

Figure 1 The mechanisms of noise-induced health effects



Source: HCN (Health Council of the Netherlands), 1999.

2.3 Review of health effects

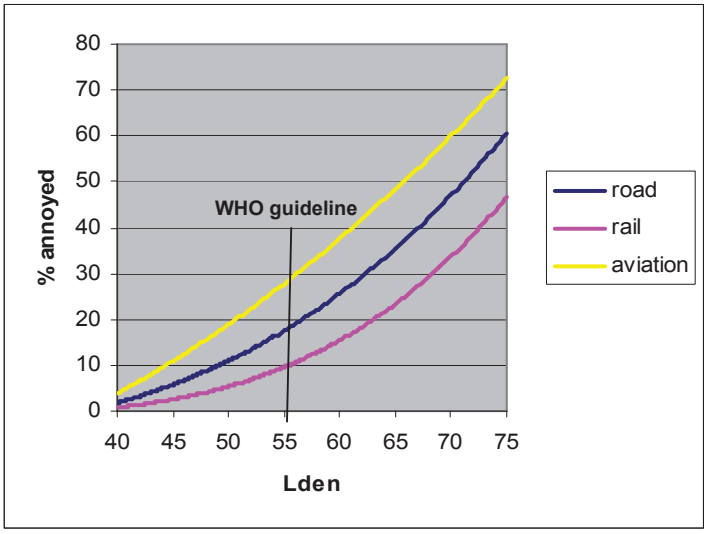
From Figure 1 and the discussion thus far we can identify the following potential health effects due to exposure to traffic noise:

- Annoyance.
- Sleep disturbance.
- Disturbed cognitive functioning (learning and understanding).
- Cardiovascular disease.
- Adverse effects on mental health.

2.3.1 Annoyance

The most widespread problem created by noise is quite simply annoyance. Annoyance can be defined as a general feeling of displeasure or adverse reaction triggered by the noise. Among the ways it can express itself are fear, uncertainty and mild anger (Stansfeld & Matheson, 2003; RIVM, 2005). In the human environment (which also includes neighbours, industry, etc.) traffic is the single most important source of noise annoyance (Niemann & Maschke, 2004; RIVM, 2004). As Figure 2 shows, aircraft noise is perceived as more annoying than road and rail traffic noise at the same volume. At a noise level of 55 dB(A), the guideline limit set by the WHO, approximately 30% of those exposed are annoyed by aircraft noise, about 20% by road traffic noise and about 10% by rail traffic noise. Some people begin to experience annoyance at traffic noise from noise levels of 40 dB(A) upwards.

Figure 2 Percentage of people annoyed as a function of noise exposure of dwellings (Lden in dB(A))



Source: Miedema & Oudshoorn (2001).

The degree of annoyance triggered by traffic noise is determined first of all by the noise level. The higher the level, the more people are annoyed and the greater the severity of perceived annoyance (Ellebjerg Larsen et al., 2002; RIVM, 2005). The degree of annoyance depends on other noise characteristics, too (London

Health Commission, 2003). The higher the pitch of the noise, the greater the annoyance. Duration and intermittency also influence the degree of annoyance.

However, traffic noise-induced annoyance is governed by more than just acoustic factors, with personal and situational factors also coming into play, as well as a person's relationship to the source of the noise. In a familiar illustration, a mosquito may not make much of a noise, but during the night it can cause considerable annoyance. Feelings of annoyance depend in the first place on an individual's sensitivity to noise (Ouis, 2001; RIVM, 2004). The fact that noise is a form of harm that can be avoided contributes to people's perception of noise as annoyance (London Health Commission, 2003). Another important determinant of perceived annoyance is fear of the noise's source (RIVM, 2004). People who feel they have no control over the situation, or believe authorities are failing to control it, are likely to experience a greater level of annoyance. Annoyance at noise depends also on how the noise interferes with everyday life (London Health Commission, 2003; Stansfeld & Matheson, 2003). People will be more annoyed when noise affects activities that involve talking and listening, such as conversations, listening to music, watching television and so on. Finally, noise in situations where it is expected is less annoying than noise in circumstances anticipated to be quiet. For this reason noise at night-time (the buzzing of a mosquito, as cited, but also traffic noise) is more annoying than during the day.

To some extent, people frequently exposed to traffic noise develop strategies of adapting and coping with the problem (London Health Commission, 2003). The problem still remains, however: subconscious physical reactions, such as raised blood pressure, and levels of annoyance due to chronic noise will not diminish over time unless the noise itself is abated.

2.3.2 Sleep disturbance

Traffic noise is the main cause of sleep disturbance (Niemann & Maschke, 2004). This effect of noise on sleep has important health effects, since uninterrupted sleep is known to be a prerequisite for proper physiological and mental functioning in healthy people (WHO, 2007). Three types of effects of noise on sleep can be distinguished: effects on sleeping behaviour (primary effects), effects on performance and mood through the following day (secondary effects) and long-term effects on well-being and health:

- *Sleeping behaviour*. Night-time noise can increase the arousal of the human body, i.e. lead to activation of the nervous system, which may result in a person awakening or prevent them from falling asleep (Ising et al., 2004; TNO Inro, 2002; WHO, 2007). However, this arousal response to noise is often more subtle than mere awakening and may involve a change from a deeper to lighter sleep, an increase in body movements, a temporary increase in heart rate and changes in (stress) hormone levels (RVIM, 2003; HCN, 2004; WHO, 2007). Finally, there is also some evidence that blood pressure is affected by traffic noise during sleep (WHO, 2007).
- *Effects on performance and mood through the following day.* The secondary effects of sleep disturbance include reduced perceived sleep quality and in-

creased drowsiness, tiredness and irritability (HCN, 2004). While there are also indications of other effects such as depressed mood and decreased performance (Ouis, 2001), the available evidence is still inconclusive (HCN, 2004; WHO, 2007).

- *Long-term effects on well-being.* In the long-term, night-time noise can lead to insomnia and increased medication use (HCN, 2004; WHO, 2007). It may also result in chronic annoyance (Berglund et al., 1999; RIVM, 2004). Furthermore, an increased risk of cardiovascular disease due to night-time noise is plausible, although there is only limited evidence for this effect (TNO Inro, 2002; WHO, 2007). Finally, there are certain indications that night-time noise can contribute to mental illness (WHO, 2007)

The effects of night-time traffic noise on sleep disturbance begin at fairly low volumes and become more likely as the intensity of the noise increases. Changes between sleep stages, increased body movements and heart-rate acceleration start at noise levels around 32-42 dB(A) (WHO, 2007). In addition, reported sleep quality is likely to be affected at noise levels above 40 dB(A) (RIVM, 2004; Ising et al., 2004; WHO, 2007). Night-time awakenings also start at levels above 40 dB(A) (WHO, 2007). However, sleep disturbance is influenced by other noise characteristics, too. People are far more sensitive to intermittent noise than continuous noise (Prasher, 2003). For example, an accelerating car will disturb a person's sleep more than a continuous traffic flow. In addition, the alarm function of the sense of hearing may lead to awakening if the noise contains information perceived to be of relevance, even if the noise level is low. This means that unfamiliar noises are far more likely to disturb sleep than familiar, regular patterns of noise. Finally, personal characteristics like noise sensitivity influence the relation between night-time noise and sleep disturbances (Ouis, 2001).

People are good at adapting to nocturnal noise. However, there is never complete habituation, particularly with respect to heart-rate acceleration (Stansfeld & Matheson, 2003; WHO, 2007).

2.3.3 Impaired cognitive functioning

Exposure to traffic noise can impair an adult's cognitive functioning (information processing, understanding and learning) (Stansfeld & Matheson, 2003). To have this effect, though, noise levels must be high, or the task complex or cognitively demanding (Prasher, 2003). Repetitive and simple tasks are unaffected by (traffic) noise. The influence of noise on cognitive functioning depends on a person's perceived control of the noise and its predictability.

In the literature there is a prominent focus on the influence of traffic noise on the cognitive functioning of children. Although most of the studies are concerned with the impact of aircraft noise in this respect, some of them consider road and rail traffic noise, too. According to Bistrup et al. (2001), the adverse effects of road traffic noise exceed those of rail traffic noise.
In general, the following effects have been found for children exposed to high levels of traffic noise (Bistrup et al., 2001; Clark et al., 2005; RIVM, 2005):

- Difficulty sustaining attention.
- Difficulty concentrating.
- Poorer discrimination between sounds and poorer perception of speech.
- Difficulty remembering, especially complex issues.
- Poorer reading ability and school performance.

A hypothesis frequently stated to explain the impact of chronic exposure to noise on the cognitive development of children is that noise affects the intelligibility of speech communication (Bistrup et al., 2001; RIVM, 2005). Ambient noise leads to a loss in the content of a teacher's instruction, and consequently children may have problems with speech perception and language acquisition. This, in turn, can lead to impairment of children's reading skills and vocabulary, and eventually to difficulties with other, higher-level processes, such as long-term memory for complex issues. Closely related to this process is the so-called 'tuning out' response: to adapt to noise interferences during activities, children filter out the unwanted noise stimuli (RIVM, 2005). However, researchers suggest that children generalise this strategy to other situations where noise is not present, with adverse effects on their understanding and learning performance.

Although there has been little research into the impact of noise reduction in this context, there is evidence that reduced noise levels can relieve cognitive problems within about a year (London Health Commission, 2003).

2.3.4 Cardiovascular disease

Exposure to traffic noise is associated with changes in blood pressure and increased risk of various types of heart disease (e.g. ischemic heart diseases, angina pectoris, myocardial infraction). Noise-induced cardiovascular diseases are considered to be the consequence of stress (Babisch, 2006; Ising et al., 2004; Prasher, 2003; RIVM, 2004). Exposure to noise triggers the production of (stress) hormones like cortisol, noradrenaline and adrenaline. It does so both directly and indirectly, through disturbance of activities. These hormones may cause changes in the values of a number of biological risk factors, such as hypertension (high blood pressure), blood lipids (e.g. cholesterol) and blood glucose. These risk factors can increase the risk of cardiovascular disease (Babisch, 2006; Ising et al., 2004). Persistent exposure to environmental noise could therefore result in permanent changes to the vascular system, with elevated blood pressure and heart diseases as potential outcomes. The magnitude of these effects will be partly determined by individual characteristics, lifestyle behaviours and environmental conditions (Berglund et al., 1999).

Sufficient evidence can be found in the literature for the relation between traffic noise and heart diseases like myocardial infarction and ischemic heart diseases (Babisch, 2006; Babisch et al., 2005; Ising et al., 2004; Prasher, 2003). Higher risks of heart disease are found for those living in streets with average noise levels above 65-70 dB(A). For these people the risk of heart disease is approximately 20% higher than for those living in quieter areas (Babisch, 2006). This risk increases with noise level. Again, the risk is also influenced by personal characteristics. For example, Babisch et al. (2005) found that only men are at higher risk

of heart attack due to traffic noise. This risk is also dependent on the number of years of exposure to the traffic noise, moreover. The longer people are exposed to a high level of traffic noise, the greater the likelihood of it having an impact and increasing the risk of a heart attack.

There is a growing body of evidence for a higher risk of hypertension in people exposed to high levels of traffic noise (Babisch, 2006). For example, a recent study by Bluhm et al. (2006) suggests the existence of a relation between residential exposure to road traffic noise and hypertension. However, earlier studies (e.g. Babisch, 1998; RIVM, 2005) show less evidence for this relationship, and according to Babisch (2006) these studies cannot be neglected in the overall judgement process. Hence more research into the relation between traffic noise and hypertension is needed.

There has been hardly any research into the impact of night-time noise exposure on cardiovascular health outcomes (Babisch, 2006). One exception is UBA (2003), who showed that night-time noise exposure was more strongly associated with medical treatment for hypertension than day-time noise exposure.

In contrast to the subjective perception of noise, which adapts within a few days through habituation (see paragraph 2.3.1), none of the cardiovascular diseases show habituation to noise after prolonged exposure (WHO, 2007).

2.3.5 Mental illness

A small number of studies have presented limited evidence for a link between traffic noise and mental illness (Prasher, 2003; Stansfeld & Matheson, 2003; WHO, 2007). The clear association between noise and annoyance does not necessarily translate into a more serious relationship with mental health (London Health Commission, 2003). However, noise may well accelerate and intensify the development of latent mental disorder. Even so, people already suffering mental problems are likely to be more sensitive to being annoyed or disturbed by traffic noise than the general population.

2.4 Traffic noise especially harmful to vulnerable groups

The health effects of road and rail traffic noise are not distributed uniformly across society, with vulnerable groups like children, the elderly and the sick affected most. In addition, poorer people are more likely to suffer the health effects of transport noise than the better off. This might be explained by lower quality housing with poor noise insulation and the proximity of housing for lower income groups to noisy transport infrastructure.

Children are likely to be a group that is particularly vulnerable to the health effects of noise. They have less cognitive capacity to understand and anticipate it and lack well-developed coping strategies (Stansfeld & Matheson, 2003). As children are still developing both physically and cognitively, moreover, in this group there is a potential risk of chronic noise having irreversible negative con-

sequences. The impact of traffic noise on children's cognitive development has already been briefly discussed. Noise may also possibly affect foetal development, by way of (stress) effects on expectant mothers (EPA, 1978). However, a more recent study questions this impact on foetal development, although such effects are not completely ruled out (Bistrup et al., 2001). Additionally, children do not appear to be at particular risk with respect to cardiovascular disease, especially through high blood pressure (Babisch, 2006). At the same time, though, traffic noise exposure from an early age may have cumulative health effects in later life, which once more include cardiovascular disease. This also holds for the negative effects of sleep disturbance. In the short term, however, children are less severely affected by sleep disturbance than adults (RIVM, 2004), as evidenced by fewer awakenings and changes between sleep stages. With respect to annoyance due to traffic noise, finally, children do not differ from adults.

The elderly and the sick are two other groups that may be especially vulnerable to the effects of traffic noise. There has not been much research into this area, however. One of the rare findings is that both the elderly and those already ill are more affected by sleep disturbance - especially awakenings - than the general population (HCN, 2004; Ouis, 2001). Also, those already suffering from sleep disturbance are more severely affected by traffic noise. With regard to cardiovascular disease, Babisch (2006) shows that people with prevalent chronic diseases have a slightly higher probability of contracting certain heart diseases as a result of traffic noise than those without. For the elderly, there is no consistent evidence that the effect of traffic noise on cardiovascular diseases is greater than for younger people. Finally, traffic noise may aggravate the psychological problems of people with existing health problems (London Health Commission, 2003).

The price of houses exposed to high levels of traffic noise will be lower than that of similar houses in quieter areas (Soguel, 1994; Theebe, 2004). Those living on lower household incomes are therefore more likely to be exposed to traffic noise than those with higher incomes, and will hence have more noise-related health problems. For the Dutch region 'Rijnmond' this relationship between household income and exposure to noise was confirmed by RIVM (2004).

2.5 Over 210 million in EU25 exposed to harmful traffic noise

In the year 2000 about 44% of the population of the EU25[3] (over 210 million people) were exposed to road traffic noise levels above 55 dB(A). This is the WHO guideline value for outdoor noise levels and the threshold for 'serious annoyance'. More than 54 million people were exposed to road traffic noise levels over 65 dB(A), which is ten times louder than the WHO guideline value. Rail traffic noise is a burden to fewer people. Nonetheless, 35 million people in the EU25 (about 7%) were exposed to rail traffic noise above 55 dB in 2000, with 7 million of them exposed to noise over 65 dB from this source.

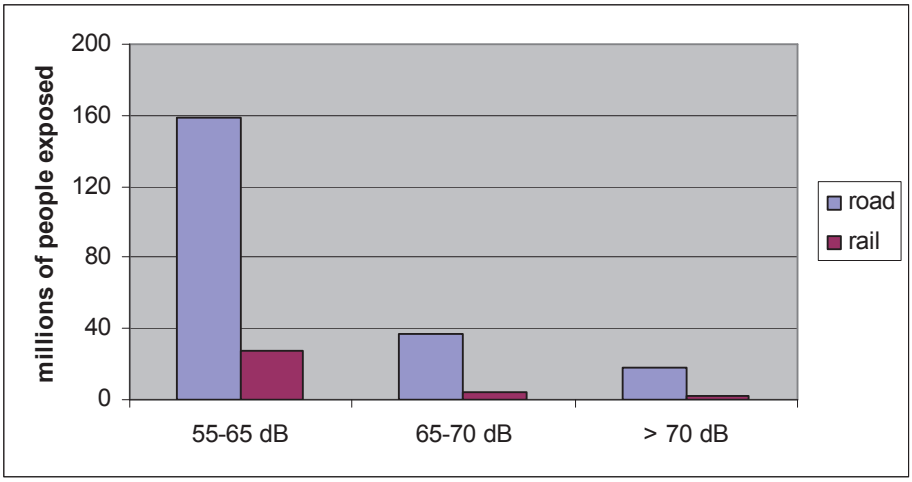
In most European countries the number of people exposed to noise levels below 55 dB are not reported on. As already discussed, though, noise below 55 dB may

[3] EU27 except Cyprus and Malta.

still trigger adverse effects like annoyance, sleep disturbance and reduced cognitive ability. The actual number of people exposed to levels of traffic noise that are potentially dangerous to their health will thus be higher than the figures presented in Figure 3.

The data in this figure are for the year 2000. Given traffic growth and the fact that legislation and standards have hardly changed in the meantime, these exposure figures probably underestimate the true extent of the problem.

Figure 3 Number of people exposed to road and rail traffic noise in 25 EU countries in 2000



Note: This figure covers the EU27 except Cyprus and Malta.
Source: INFRAS/IWW (2004), OECD/INFRAS/Herry (2002), calculations by CE Delft (for Estionia, Latvia, Lithuania).

These figures for the number of people exposed to traffic noise are based mainly on data from INFRAS/IWW (2004) (West European countries) and OECD/INFRAS/Herry (2002) (East European countries). Link (2000) also presents estimates for the number of people exposed to traffic noise in certain West European countries. Although in some cases the results for individual countries (including the Netherlands) differ considerably between the first and last of these studies, the aggregate numbers are comparable, with a difference of only about 3% between the two. Since INFRAS/IWW (2004) covers more countries and uses more up-to-date data, we chose to present these figures here.
The reliability of these data sets is discussed in appendix A.

2.6 Health of millions of Europeans affected by traffic noise

Although not all people exposed to road or rail noise will experience health effects (see also appendix A), a significant fraction will. Beyond investigations of the absolute number of people suffering from various health effects due to traffic noise, however, not much research has been undertaken in this area. In this section, therefore, we cannot do much more than provide an estimate of the number of people affected by cardiovascular disease. In addition, figures on the number

of people experiencing annoyance at traffic noise in Europe are presented. Finally, the health impact of traffic noise is compared to the health impact of two other social problems: air pollution and traffic accidents.

Fatal heart attack and ischemic heart diseases

The annual count of people suffering a (fatal) heart attack due to traffic noise is known for three countries only (see Table 2). For two of these, Denmark and Germany, the annual count for ischemic heart diseases (IHD) is also known.

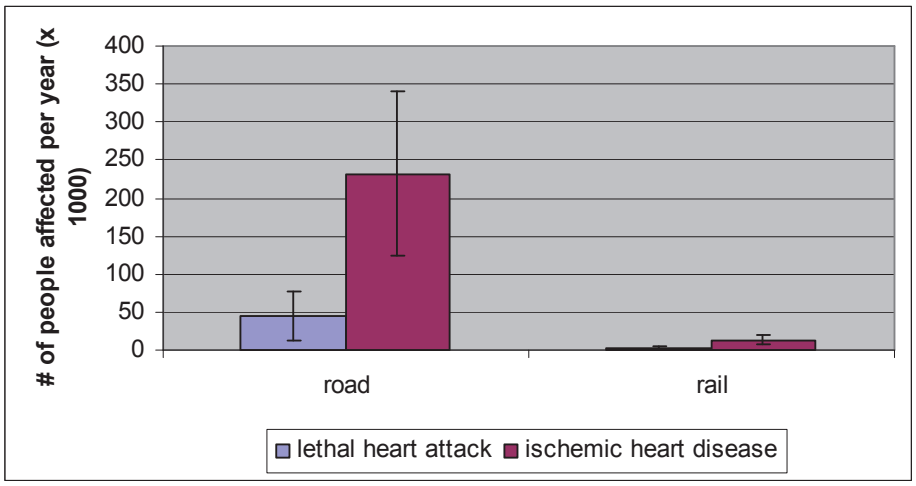
Table 2 Number of people affected by heart diseases and the probability of heart diseases due to traffic noise in three European countries

Country	Annual count of people suffering a lethal heart attack	Annual count of people affected by IHD	Probability of a lethal heart attack for people exposed to > 60 dB	Probability of IHD for people exposed to > 60 dB
Denmark	200 - 500	800 - 2200	0.00026 - 0.00065	0.001 - 0.003
Germany	4,289	27,366	0.00017	0.001
Netherlands	300 - 1000	-	0.00016 - 0.00053	-

Sources: Babish, 2006; Danish, 2003; RIVM, 2005; probabilities calculated by CE Delft.

Based on these figures and the number of people exposed to noise levels above 60 dB(A) in the relevant countries, we estimated the probability of a fatal heart attack or ischemic heart disease and used these probabilities to estimate the number of people likely to be affected by these diseases in the EU25 annually. To this end, for each country we multiplied the number of people exposed to noise levels over 60 dB(A) by the respective probabilities of the heart diseases. The aggregate results of this estimation procedure are shown in Figure 4.

Figure 4 Indication of number of people affected by an ischemic heart disease or suffering a lethal heart attack due to traffic noise in the EU25 (2000)



Note: This figure covers the EU27 except Cyprus and Malta.

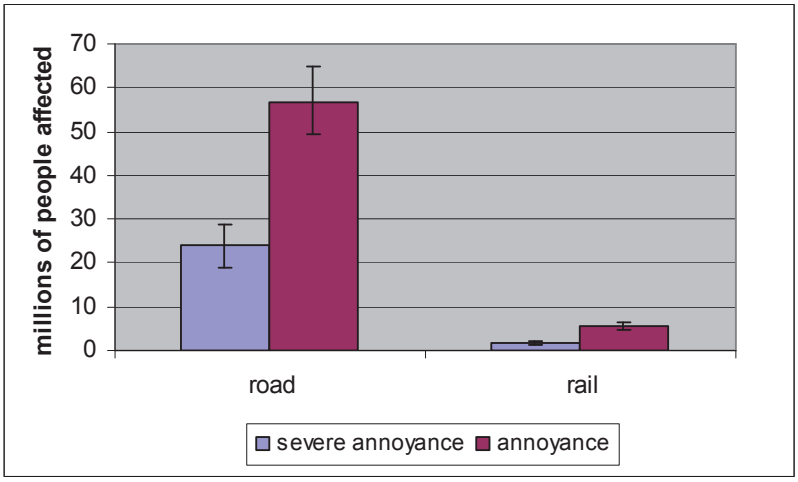
To estimate the number of people affected by heart diseases the average of the probabilities from Table 2 were used, with the upper and lower bounds of the band width estimated using the highest and lowest probability, respectively.

We can conclude that over 245,000 people in the EU25 are affected by an ischemic heart disease due to traffic noise annually, of whom 94% (approx. 231,000) due to road traffic noise. About 20% (almost 50,000) of these people suffer fatal heart attacks. Road and rail traffic noise are thus responsible for around 50,000 premature deaths per year in Europe.

Annoyance

To estimate the number of people experiencing annoyance at traffic noise, we used exposure-response relationships. Miedema & Oudshoorn (2001) have estimated the percentage of people annoyed as a function of both road and rail traffic. Their exposure-response functions have already been presented in paragraph 2.3.1. These researchers derived exposure-response functions for both severe annoyance and annoyance and these curves have been recommended for use in EU legislation on noise (EC, 2001). Figure 5 shows the number of people experiencing (severe) annoyance at road and rail traffic noise in the EU25.

Figure 5 Number of people affected by (severe) annoyance due to road and rail traffic noise in the EU25 in 2000



Note: This figure covers the EU27 except Cyprus and Malta.

To estimate the number of people affected by (severe) annoyance, the exposure data from paragraph 2.5 were used. These exposure data are related to L_{Aeq} noise levels, while the exposure-response functions of Miedema & Oudshoorn are defined for L_{den} noise levels. For this reason the exposure data were translated using a rule of thumb: noise levels expressed in L_{den} are approximately 2 dB(A) lower than those expressed in L_{Aeq}. To express the uncertainty in the estimates a band width for the results is shown. The upper and lower bound of this band width were estimated by varying the exposure figures by 2 dB(A).

Around 57 million people in the EU25 are annoyed by road traffic noise, 42% of whom (approximately 24 million) are severely annoyed. This means that about 12% of the European population suffers annoyance due to road traffic noise. Rail traffic noise causes annoyance to about 5.5 million Europeans (about 1% of the total European population), of whom about 2 million are severely annoyed.

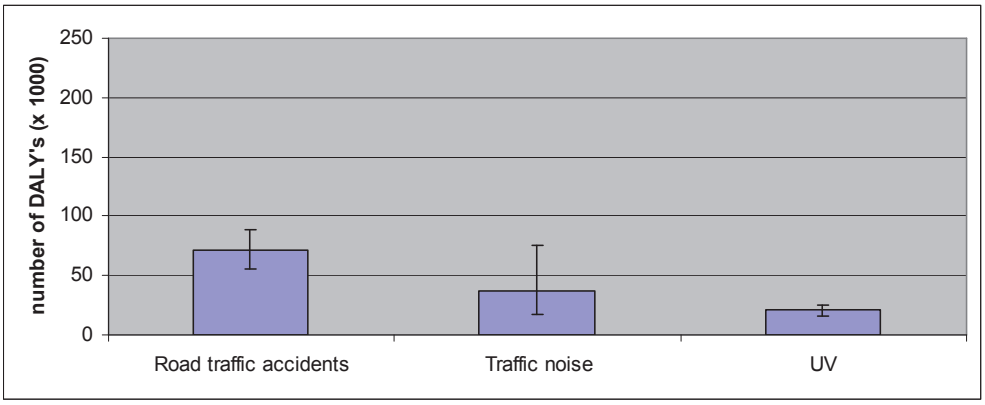
Comparison with health impact of other environmental problems

Disability-adjusted life years (DALY) is a measure used to quantify the overall 'burden of disease' on a population. It does so by combining the impact of premature death (mortality; life years lost) and disability (morbidity; life years lived with disability or disease) into a single, comparable measure. DALYs represent the total number of years of life lost due to premature death and of years lived with a reduced level of health, weighted by the seriousness of the health impairment suffered (SAEFL, 2003). Below, we use DALYs to summarise the health impact of an external environmental influence, traffic noise. By using this concept it is possible to compare the total impact of several health effects of traffic noise and, moreover, to compare the magnitude of these effects with that of other problems affecting society, such as air pollution and traffic accidents.

The WHO is currently working on an estimate of DALYs for traffic noise for Europe. To date, however, there is only country for which such an estimate is publicly available: the Netherlands. For this country, RIVM (2005) present DALYs for several environmental vectors of disease: see Figure 6. The DALYs for traffic

noise take the following health effects into account: mortality (through stress, hypertension and cardiovascular diseases), severe annoyance and severe sleep disturbance. These health effects are the major determinants of DALYs caused by traffic noise. Including other health effects, such as the adverse impact on cognitive functioning and hearing impairment, will not significantly change the order of magnitude of DALYs related to traffic noise.

Figure 6 Burden of disease due to several problems in the Netherlands in 2000, in DALYs



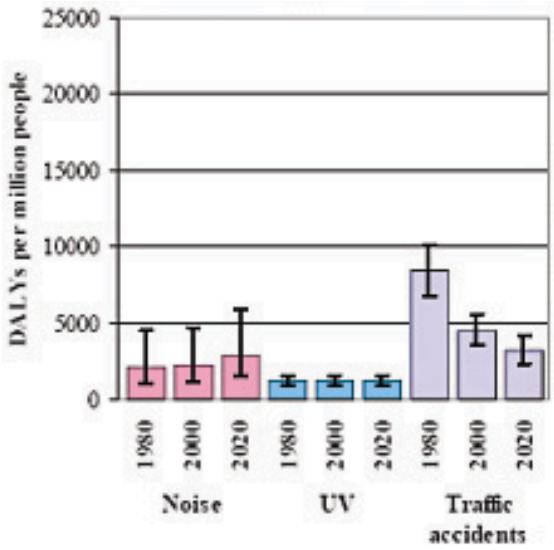
Note: The 90% prediction intervals around the respective DALY values are indicated by a band width. The figures for traffic noise include road, rail and air traffic noise.
Source: RIVM, 2005.

The annual health loss associated with traffic noise is approximately half the health loss due to traffic accidents.

The number of DALYs related to traffic noise presented in Figure 6 also includes the noise of air traffic. The latter is only a very minor source of health loss (see Figure 8), as airport noise affects only relatively few people. However, the exposure of these people is likely to be severe, and so will their health loss.

RIVM (2005) also present trends in the environmental burden of disease in the Netherlands for the period 1980-2020. Figure 7 presents trends in DALYs due to three environmental problems.

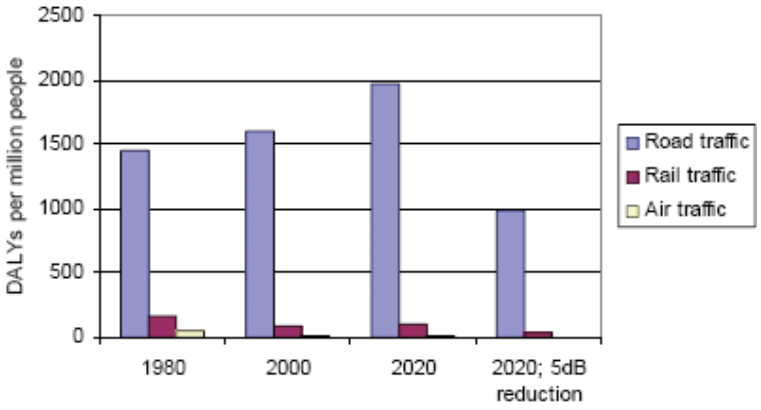
Figure 7 Trends in DALYs per million people in the Netherlands for the period 1980-2020



Source: RIVM, 2005.

In contrast to problems like traffic accidents, the number of DALYs due to traffic noise rose between 1980 and 2000. With policy as it stands today, this disease burden will continue to grow in the coming years, while that of traffic accidents will continue to fall. RIVM (2005) also report on the potential decrease in disease burden if noise levels are reduced by around 5 dB(A) for every source by 2020. Such a reduction could almost halve the number of annoyance and sleep disturbance-related DALYs (see Figure 8).

Figure 8 DALYs per million caused by severe annoyance and severe sleep disturbance due to raod, train and air traffic noise, for 1980, 2000 and 2020, including an alternative scenario for 2020 (with 5 dB(A) noise exposure reduction for road and rail traffic)



Source: RIVM (2005).

In Chapter 4 we demonstrate that a 3-4 dB(A) reduction of road and railway noise is easily feasible in the short term using currently available technologies.

2.7 Effects on animals and ecosystems

It is not only humans but also animals that are affected by traffic noise. When exposed to man-made noise they may suffer both physiological and behavioural effects (Kaseloo and Tyson, 2004). With regard to the former, an animal's response may range from mild annoyance to panic and escape behaviour. These responses are manifestations of stress, which may harm an animal's health, growth and reproductive fitness. For example, energy losses due to escape and panic responses could result in impaired growth and health. For some animals, traffic noise also interferes with communication (Kaseloo, 2005). Bats, for example, a species group totally reliant on echo location, are unable to find food if noise levels are too high.

In terms of behaviour, animals may avoid places with high levels of traffic noise. In the case of birds it has been found that sound levels above 40 - 45 dB(A) influence species distribution; as the noise level at a given spot increases, fewer birds will visit the spot (Kaseloo, 2005; RIVM, 2002). For animals like the mountain goat and white-tailed deer, too, evidence has been found for the avoidance of noisy areas around busy roads (Kaseloo & Tyson, 2004).

The effects of traffic noise on animals vary markedly among as well as within species, owing to a variety of factors (such as age, sex, prior exposure, etc.). It is therefore hard to draw any general conclusions about the effects of traffic noise on animals. Further research on this topic is certainly needed. Nevertheless, from the evidence presented here it is reasonable to say that traffic noise interferes with animals' feeding, hunting and breeding behaviour and performance.

3 The social costs of traffic noise

3.1 Valuing the health effects of traffic noise

The loss of well-being due to exposure to traffic noise can be expressed in monetary terms. The amount of money people are willing to pay to avoid traffic noise provides a good estimate of the loss of well-being people experience. In some instances the market will provide reliable estimates of people's willingness to pay (WTP). For example, the price of sleeping pills provides an estimate of the WTP to fall asleep and avoid night-time awakenings.

For many of the health effects of noise, however, there are no such market prices. To estimate the WTP to avoid these effects various methods are available. Generally speaking, there are two relevant valuation methods: hedonic pricing and contingent valuation. The hedonic pricing method examines variations in housing prices due to traffic noise. These differences can be seen as the WTP to avoid the adverse effects (especially annoyance) of noise. The contingent valuation method, on the other hand, involves asking people directly in a survey how much they would be willing to pay to avoid certain health effects associated with noise. Both methods are used for placing a value on the effects of traffic noise.

To value mortality due to traffic noise means assigning a monetary value to a human life. In the field of environmental valuation this has always been a controversial topic, for the WTP to avoid the loss of one's life is infinite, is it not? Nonetheless, in their everyday lives people make plenty of choices that influence their risk of mortality. For example, we may choose to drive a motorcycle despite being aware that this involves a greater risk of lethal accident than driving a car. With the aid of this kind of information on risk behaviour a value can be determined for a *statistical* human life.

Additional information on attributing a monetary value to traffic noise is provided in appendix B.

3.2 Social cost of traffic noise in EU22 over € 40 billion a year

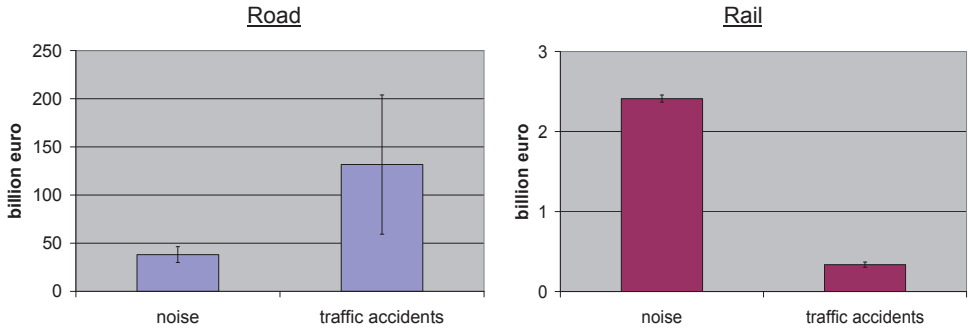
The social cost of road traffic noise in the EU22[4] is estimated to be at least €38 (30 - 46) billion per year, which is approximately 0.4% of total GDP in the EU22. For rail, estimates of social costs due to noise are about € 2.4 (2.3 - 2.5) billion per year (about 0.02% of total EU22 GDP). It should be noted that this takes into account only effects related to noise levels above 55 dB(A), while people may also be adversely affected by noise below this level. Hence, the social cost estimates presented here probably underestimate the actual costs.

The social costs of road traffic noise in the EU22 are almost one-third of those associated with road traffic accidents; see Figure 9. In the case of rail traffic,

[4] EU27 except Cyprus, Estonia, Latvia, Lithuania and Malta.

though, the social costs of noise are approximately seven times those of accidents.

Figure 9 Social costs of traffic noise in the EU22 compared to those of traffic accidents (2006 price level)



Note : This figure covers the EU27 except Cyprus, Estonia, Latvia, Lithuania and Malta and hence covers 98.4% of the EU27's population.

Sources: INFRAS/IWW (2004), OECD/INFRAS/Herry (2002), Link (2000).

These social cost estimates are based on valuation studies by INFRAS/IWW (2004), OECD/INFRAS/Herry (2002) and Link (2000). INFRAS/IWW and Link provide cost estimates for West European countries, while cost estimates for East European countries are provided by OECD/INFRAS/Herry. INFRAS/IWW and Link cover partly the same countries, with the two studies presenting somewhat different estimates for some of them. A brief explanation for these differences is given in appendix B. As it is not clear which of the studies presents the most reliable estimates, in calculating total social noise costs in the EU22 the average of the two has been used for the relevant countries. For these countries minimum and maximum estimates were also determined, which were used to estimate band width. Note that the band width for the estimated social costs of traffic noise in the EU22 is based on minimum and maximum estimates for just 9 countries. For the other 13 countries, only a single estimate was available.

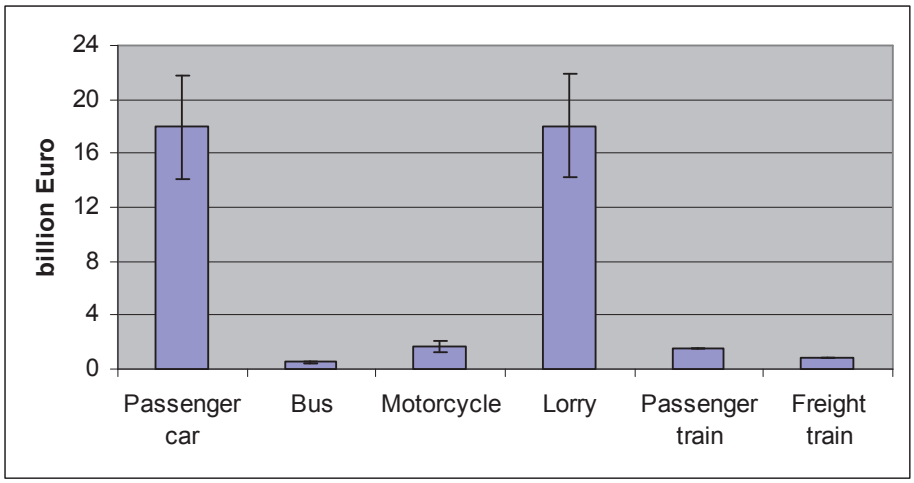
Another way to estimate the social costs of traffic noise is by valuating the associated DALYs (see previous chapter). As mentioned, the WHO is currently working on an estimate of DALYs due to traffic noise in Europe and certain preliminary results of this study have already been presented in the EU's Noise Steering Group[5]. These tentative results show that the total number of DALYs depends heavily on how the DALYs due to annoyance are calculated. Differences in measuring method yield estimates differing by a factor 2. If we value the WHO's conservative estimate of DALYs (assumption: 1 DALY equals € 78,500 (VITO, 2003)), the social costs of traffic noise are found to be comparable to the figure obtained by using the results of INFRAS/IWW, OECD/INFRAS/Herry and Link. The social cost estimates presented above would therefore appear to be robust, but conservative.

[5] See: http://circa.europa.eu/Public/irc/env/noisedir/library?l=/health_effects_noise/who&vm=detailed&sb=Title

3.3 Passenger cars and lorries responsible for bulk of costs

Passenger cars and lorries are responsible for 90% of the total social costs of road and rail traffic noise in Europe; see Figure 10. This is due above all to the large number of vehicles and kilometres driven on European roads.

Figure 10 Distribution of social costs due to traffic noise in the EU22 over transport modes (2006 price level)



Note : This figure covers the EU27 except Cyprus, Estonia, Latvia, Lithuania and Malta.
Sources: INFRAS/IWW (2004), OECD/INFRAS/Herry (2002), Link (2000).

This distribution of social costs over transport modes is again based on the valuation studies by INFRAS/IWW (2004), OECD/INFRAS/Herry (2002) and Link (2000). To derive average figures for the EU22 the same methodology was used as in section 3.2.

3.4 Benefits of noise reduction

Noise abatement policies will have major economic benefits. Less people will be annoyed by traffic noise and the incidence of health problems will decline. With their sleep less disturbed, people may also be more productive at work. The latter effect may be reinforced by improved cognitive performance, moreover. According to Navrud (2002) the perceived benefit of noise reduction is € 25 per household per decibel per year. This estimate is based on a thorough review of the literature on this topic. The EU working group 'Health and Socio-Economic Aspects' (2003) also recommends using this figure to value noise reduction.

Noise abatement policies will generate cost savings for government, too. Expenditures on the health system will be lower due to a decline in noise-related health problems. In addition, if noise is reduced at its source (i.e. on vehicles, road surfaces and rail tracks), then local and national authorities can reduce the funds currently spent on building and maintaining noise barriers and insulation. The Dutch government's Noise Innovation Programme (IPG) has calculated that for every decibel of noise reduction at-source €100 million in expenditures on end-of-

pipe measures such as noise barriers and insulation will be saved (IPG, 2007). This calculation only takes major interurban roads and railways into account. Actual savings will probably be even greater, because other regions and urban areas will also benefit from such noise reduction via at-source measures. From a social perspective there is also a preference for at-source over end-of-pipe measures, the latter being considerably less cost-effective (see Chapter 4).

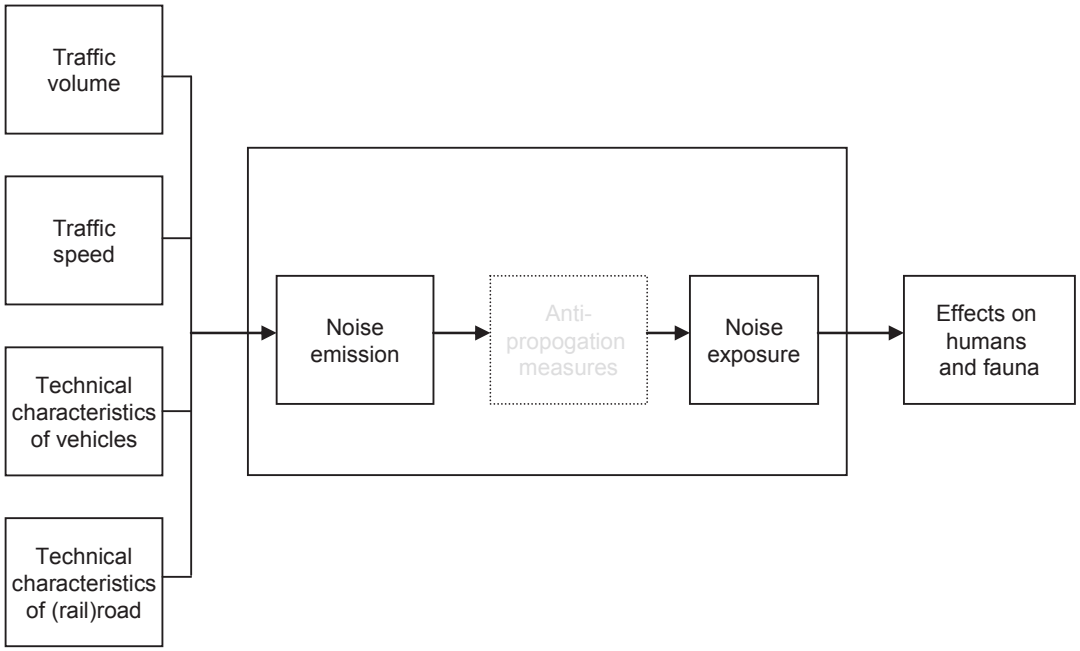
4 Noise reduction options

In this chapter we set out the noise policy developments of the last decades and the measures available to reduce traffic noise. We first describe the difference between at-source measures and end-of-pipe (anti-propagation) measures and then present an in-depth analysis of the former.

4.1 At-source versus end-of pipe measures

There are essentially two routes to noise abatement. Firstly, noise emissions can be reduced at their source, through measures relating to vehicles/drivelines, tyres, road surfaces and traffic management. Secondly, noise can be abated by reducing the exposure of people by means of anti-propagation or insulation measures (by increasing the distance between source and recipient, for example, or hampering noise propagation by insulating buildings or constructing noise barriers). Figure 11 provides a schematic overview of the factors leading to adverse effects of noise and thus the basic routes available to achieve abatement.

Figure 11 Factors determining traffic noise emissions



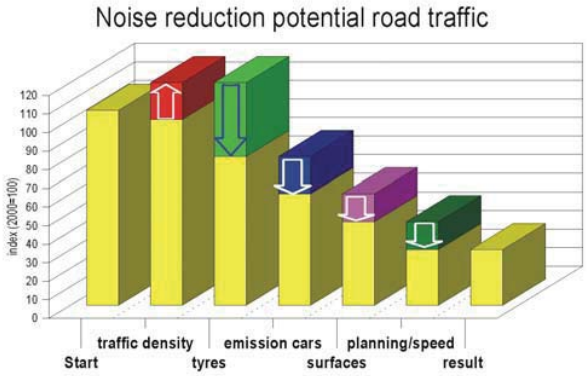
Source: RIVM, 2003 adapted by CE Delft.

At-source measures that reduce overall emissions are preferable to noise exposure measures reducing imissions at the local level, like insulation of houses or construction of noise barriers (EC, 2004; KPMG, 2005).

At-source measures have the greatest potential

Measures that tackle the basic sources of noise have vast potential to reduce exposure; see Figure 12. This figure provides a qualitative estimate based on the contribution to the potential reduction of annoyance by each of the contributing factors. Together, these measures could reduce annoyance due to road traffic by as much as 70%. To make this a reality, though, requires concerted efforts at all government levels: EU, national and local, with the EU the most important body when it comes to at-source measures. At noise hotspots (residential areas, outside schools, hospitals, etc.) pan-European measures need to be complemented by specific local policies.

Figure 12 Reduction potential using current noise reduction technologies (expert judgement)



Source: EC, 2005.

As can be seen, the greatest reduction potential comes from technical measures to reduce noise emissions from vehicles, tyres and road surfaces. The abatement impact of these various measures is presented in more detail in Table 3.

Table 3 Potential at source noise reduction measures, in dB(A)

	Vehicle		Speed reduction	Road surface	
	Engine	Tyre		Thin/dense	Porous
5 year perspective	1-2	1-2	1-3	1-3	2-4
10-15 year perspective	2-4	2-4	-	3-5	6-8
Effect of measure	international	international	local	local	local
Who pays?	Industry/polluter	Industry/polluter	Industry/polluter	Road owner/society	Road owner/society

Source: TOI, 2005.

At-source measures most cost effective

Measures to reduce noise at-source are generally more cost-effective than those designed to hamper its propagation (Ohm, 2006; DRI, 2005). Measures relating to tyres and vehicle propulsion can achieve noise reductions at relatively low cost, because state-of the art engines and tyres are already performing signifi-

cantly better than current limits. Tightening of the limits will therefore cause very little additional cost to the automotive industry (KPMG, 2005).

The Danish national traffic noise strategy shows that measures aimed at reducing noise propagation (including noise barriers) are amongst the least cost–effective solutions for 2020 (Danish, 2003). If these are applied on a large scale in the absence of at-source measures, the costs will even outstrip the benefits. One Danish case study clearly illustrates that porous asphalt is far more cost-effective than anti-propagation measures like home insulation or noise barrier construction, which are 3-10 times more expensive (DRI, 2005).

The Dutch Noise Innovation Programme (IPG) has calculated that every decibel of noise reduction at-source will save € 100 million in national expenditure on noise barriers and building insulation.

In general, the benefits of at-source noise abatement measures dramatically exceed their costs. This means that from a welfare point of view it is clearly advantageous to implement noise measures at-source. RIVM (2003) estimates that the benefits of noise reduction by way of quieter tyres, low-noise road pavements and wheel/rail optimisation are on average 2-4 times higher than their cost.

Of these measures, the cost effectiveness of quieter tyres is greatest, as several studies report that tyre/road noise reduction comes at zero cost (Sandberg, 2006; RIVM, 2003). A study by FEHRL indicates that the cost effectiveness of a reduction of tyre/road noise is significantly better than the figure reported above. FEHRL estimates the benefits at € 48-123 billion, while the costs are only € 1.2 billion. The main cost item for industry would be discontinuation of production of the noisiest tyres. Research costs would be very limited, as quieter tyres have already been developed and are already on sale on the European market (FEHRL, 2006).

Another argument in favour of at-source measures is that the costs of noise reduction are borne directly by the car driver, with any research and development costs being incorporated into prices. Furthermore, at-source measures - especially those at vehicle level - are in line with the polluter pays principle and Article 174 of the EC Treaty, which states action at-source to be a priority principle.

One disadvantage of at-source measures at the vehicle level, however, is that penetration of the vehicle fleet takes several years for tyres and almost a decade for motor vehicles. Local measures like speed reduction and low-noise road surfaces are therefore also needed. Given the very long life spans of railway rolling stock, this is even truer of railway noise reduction measures. The optimal strategy will need to comprise a mix of local and at-source measures, including noise barriers at hotspots.

4.2 Transport noise regulation: the legal framework

Road vehicle noise is covered by two European directives. Motor vehicle noise emission has been covered by legislation since the 1970s (Directive 70/157) and tyre-road noise since 2001 (Directive 2001/43).

The EU Driveline noise directive follows Regulation No. 51 of the United Nations Economic Commission for Europe (UNECE), which harmonises measurements of road vehicle sound emissions. Regulation 51 is defined at the international level by the UNECE world forum for harmonisation of vehicle regulations.

Railway noise is addressed through directives on railway interoperability for high-speed rail (Directive 96/48/EC) and conventional rail (Directive 2001/16/EC), which provide a legislative framework for technical and operational harmonisation of the rail network. Under this legislation, Technical Specifications for Interoperability (TSIs) are established by the Commission, which include noise limits for rolling stock.

Despite these efforts, the noise exposure of citizens has not diminished since the 1970s. In part this is due to ineffective legislation as well as increased traffic volumes. Additionally, though, it was deemed necessary to focus noise policy on actual noise reception. The 1996 Green Paper marked the start of this alternative approach, leading to the Environmental Noise Directive (END) of 2002 (Directive 2002/49) as a second cornerstone of noise policy. Its main objectives are:

- To monitor environmental noise.
- To address local issues.
- To inform the public about noise issues.
- To oblige local authorities to draw up noise maps and action plans for reducing noise exposure in and around major cities, roads, railway lines and airports (see Table 4).

At the same time, however, responsibility for setting noise exposure limits remains the competence of national authorities. Formally speaking, the action plans do not need to be attuned to these national exposure limits.

Table 4 Timetable for creation of noise maps and action plans

Area / Source to be mapped	Strategic noise maps by	Action plans by
Agglomerations		
> 250,000 inhabitants	30 June 2007	18 July 2008
> 100,000 inhabitants	30 June 2012	18 July 2008
Major roads		
> 6,000,000 vehicles / year	30 June 2007	18 July 2008
> 3,000,000 vehicles / year	30 June 2012	18 July 2008
Major railways		
> 60,000 train journeys / year	30 June 2007	18 July 2008
> 30,000 train journeys / year	30 June 2012	18 July 2008
Major airports		
> 50,000 flights / year	30 June 2007	18 July 2008

Traffic noise is also one of the impacts to be documented during the environmental impact assessment (EIA) of transport infrastructure projects. Guidelines for weighting noise as an environmental impact during the decision-making process are set out in European directives 85/337/EEC and 97/11/EC.

Under the framework of the CARS 21 initiative to boost the competitiveness of the EU car industry, the Commission has announced a 'holistic' view with regard to the tackling of noise issues. Thus, all relevant stakeholders and systems (e.g. traffic management, driver behaviour, vehicle and tyre technology, road surfaces) should be involved in tackling noise issues so as to achieve a cost-effective package of reduction measures (EC, 2007).

In the past, noise has always been seen as more of a trade issue relating to harmonisation of product standards than as an environmental health issue in the EU. This is still the case today, to judge by the influence of UNECE working groups, the handling of rail noise and the leading position of DG Enterprise and Industry in determining EU noise standards for vehicles.

4.3 Vehicle noise regulation failed

Despite noise type approval limits being in force since 1970, since then there has been no tangible reduction of noise emissions under real driving conditions for passenger cars and only a 2-4 dB(A) reduction for heavy duty vehicles (HDVs) (RIVM, 2003; Blokland, 2004). This is due to:

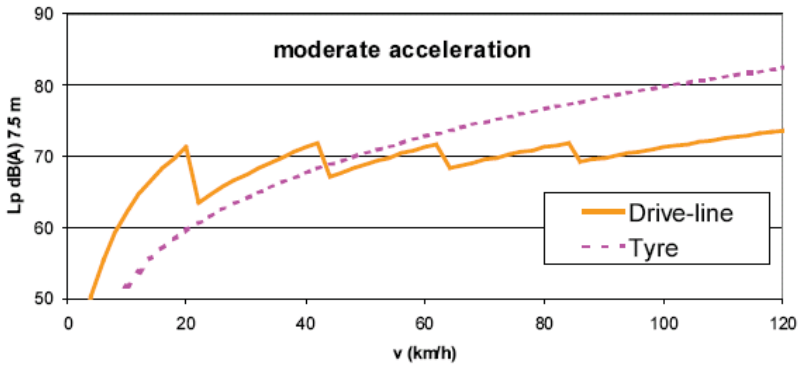
- Weak, ineffective noise emission limits.
- Driving conditions during product approval tests for vehicles and tyres that do not reflect real traffic situations.
- Test conditions being changed several times, which implied a tightening of the limits for HDVs but a weakening for passenger cars by several dB(A) (M+P, 2000; see Figure 14).
- Tyres only being assessed separately since 2001, even though tyre/road contact is already the dominant source of noise from passenger cars at any speed over 30-50 km/h.

Although the exterior noise of vehicles has not diminished over the last decades, interior noise has been reduced, through improved insulation methods, in response to customer demand.

Directive 70/157/EEC, which has been updated several times, prescribes a test method for vehicle driveline and tyre noise and lays down noise emission limits. The test method basically comprises a noise measurement under full torque during acceleration at low speed. The underlying reasoning is that if a vehicle passes this extreme test it will also be quiet under normal circumstances. However, the test method has undergone several changes over the years, the most important of which has been changes in gear and hence engine speed (rpm), the most important determinant of driveline noise emissions.

Vehicle driveline noise versus tyre noise
The two main noise sources in road transport are the vehicle driveline and tyre/road contact. The higher its speed, the more noise a vehicle produces. This graph shows the relationship between speed and noise emission for both driveline and tyres. At lower speeds driveline noise predominates, with the noise of tyre-road contact becoming most important as speed increases. The jagged line follows gear changes.

Figure 13 Correlation between speed and noise emission for a passenger car

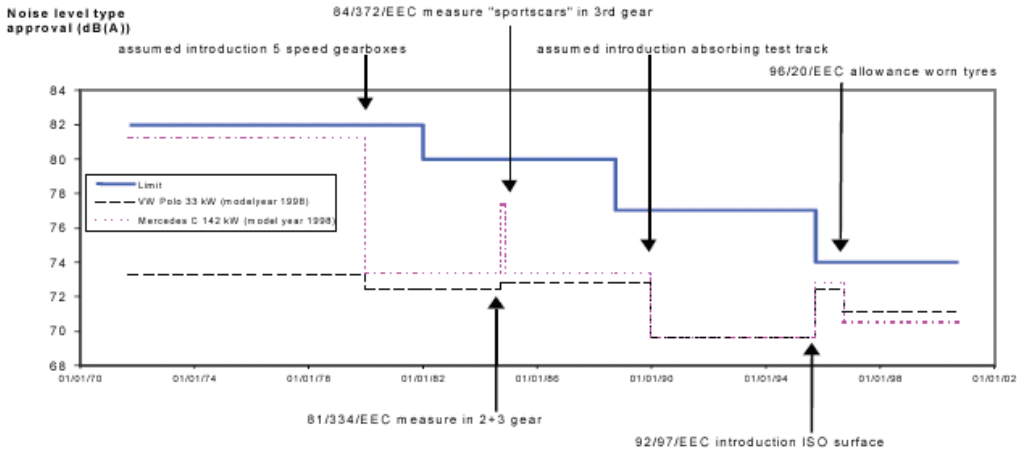


Source: RIVM, 2002.

The change in test method meant a reduction in the tested engine speed of passenger cars and an increase in that of heavy vehicles. Consequently, heavy vehicles became significantly more silent, while passenger cars did not (Blokland, 2004). The road surface and tyre have also been redefined in the test method, moreover, in a way beneficial to vehicle manufacturers. Figure 14, below, illustrates the liberal limits and the effect of the changes in the measurement procedure.

All in all, the noise emissions of passenger cars have not been further restricted by European or international noise emissions standards. This is illustrated by (M+P, 2000). One would expect a 1998 vehicle to be far more silent than the noise emission standard of 1970, but Figure 15 shows that this is not the case. The figure shows that although noise emission limits have indeed been tightened over time, these gains have been mainly on paper and not been translated to the real world. As can be seen, vehicle noise emissions follow roughly the same pattern as the tightening of limits. This means vehicles did not in fact become quieter, but that changes in the test method caused reduced noise emissions. Appendix A elaborates further on the effect of the past tightening of limits and test cycles on vehicle noise emissions.

Figure 14 Measured noise emissions of two passenger cars over the years as a function of the type approval test



Source: M+P, 2000.

Since 2000, lengthy discussions have been held within the UNECE working group on vehicle noise about the update of the test method and new limit values. There is a general consensus in the Working Party on Noise (GRB) that equivalent values must be identified between the new and old test procedures before any tightening of the limits can be discussed. A 2-year data collection period will start in June 2007. Updating the Directive will therefore take around 5 years from now before coming into force. Several experts consequently argue for a tightening of the type approval limits while still retaining the current test cycle.

As the new standards will apply only to new vehicles, it will be a decade before quieter cars start reducing noise exposure. With a 2-year measurement period after 2007 and around four years for new limit values to be negotiated and transposed in the UNECE and EU, it will be another two years before the new limit values come into force, so that quieter cars may not reach the market until about 2015. The average age of a car on the roads is around 6 years, and the overall noise abatement impact of new legislation will only have effect once quieter vehicles make up the bulk of the fleet. Tangible effects could therefore perhaps be expected on Europe's roads around 2020.

Recent drafts of the test procedure indicate that a more realistic driving pattern is to be adopted. It is extremely important, however, that the vehicle test remains a test of the power unit itself, where tyre/road noise is marginal.

Scope for immediate improvement of at least 3 dB(A)

The conclusions of a review of the technical potential for reduction of vehicle noise by TRL and RWTUV (TRL, 2003) can be summarised as follows:

- *Engine*: the variance of today's production engines for cars is around 7 dB(A) over the whole range, with the upper half comprising engines that are still on the market but not state-of-the-art. This means there is a reduction potential of 3 dB(A) if all vehicles are equipped with these quieter, currently available engines.
- *Gas flow noise*: a further reduction of intake and exhaust noise can in general be achieved by using greater silencer volumes and double-walled silencers. The problem is to reserve the necessary storage capacity for the silencers and accommodate the increase in weight.
- *Mechanical noise*: For cars, the contribution of gearbox and drivetrain to overall noise emission is insignificant. For heavy duty vehicles the situation is different, especially since the requirements for robustness and durability are much higher than for passenger cars. Possible reduction measures are advanced encapsulations and the de-coupling of the gearbox and engine (lower rpm).

A study by EC (2004) indicates that the limits for heavy duty vehicles could be lowered by 3-5 dB(A) in two steps within 10 years, based on a new measurement method. For passenger cars and light duty vehicles, the limits could be tightened by 3-6 dB(A) in two steps within the same timeframe.

For passenger cars the following proposal has been presented by M+P consultancy (Blokland, 2004):
- Decrease limit value from current 74 to 71 dB(A) (several cars are already available with 67 dB(A)).
- Remove the +1 dB(A) allowance for direct-injected diesel engines. Modern diesel injection technology is not louder than petrol engines.
- Remove the unnecessary allowance of +2 dB(A) for vans: these are mainly 'stripped down' passenger car models.

In the case of passenger cars, acoustic design usually tends towards lower noise volumes, especially for luxury models. However, loud acoustic design is a specific feature of a small minority of sports cars, which can thus nonetheless determine the overall sound level of a road. The industry is not that keen to reduce noise limits, as it sets restrictions on producing cars with a 'sporty' sound.

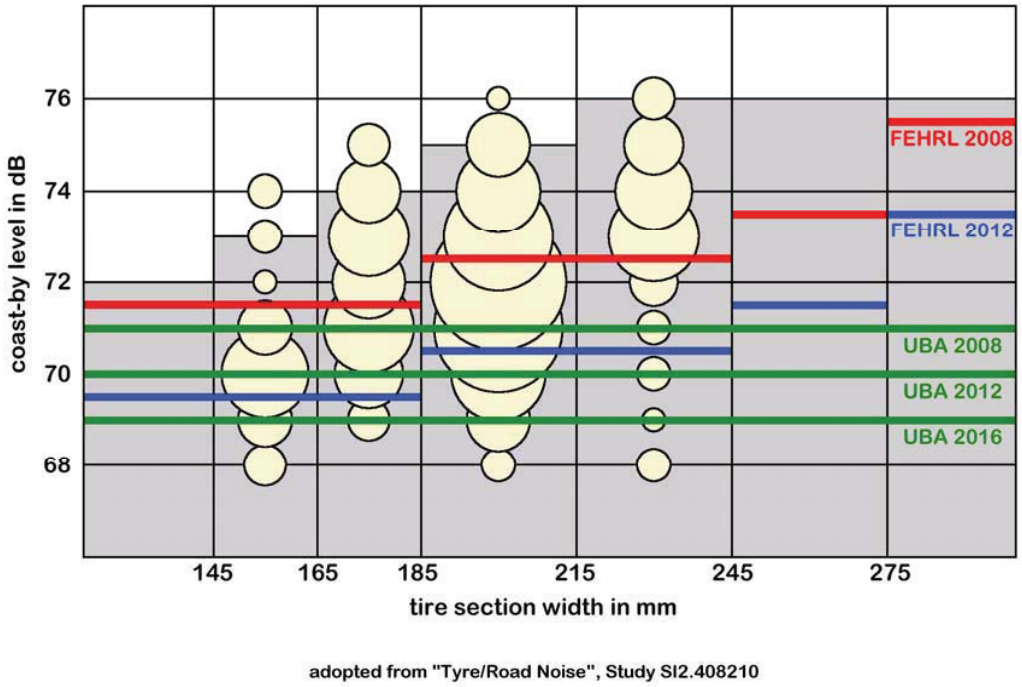
4.4 Tyre noise limits too high to be effective

In 2001 Directive 2001/43/EC came into force, setting limit values for tyre/road noise. This Directive was potentially an important contribution to noise policy, because above 30-50 km/h tyre/road noise becomes the most important source. Almost all the tyres that have been in service since the regulations were introduced are well below the current limits. The Directive is therefore essentially ineffective and no more than symbolic (see Figure 15). Even the lowering by 1-2 dB(A) foreseen by the directive for 2007-2009 is ineffective (Sandberg, 2003). The most striking feature is that a 1dB(A) reduction and a round-down are applied before the measured test values are compared with the limit values. This implies that a tyre measured at 77.9 dB(A) meets the limit value of 76 dB(A).

In August 2004 the Directive and emissions limits were scheduled for revision. Within the framework of the revision of the Road/tyre directive, the Commission has commissioned FEHRL to carry out a study to assess the potential for reducing the limit values and the impacts of reductions on overall traffic noise, safety and economy. Based on the FEHRL study, the Commission will come up with a proposal for a Directive replacing and expanding on 2001/43/EC. This proposal will include standards for safety (wet grip, aquaplaning) and rolling resistance as well as noise. A consultation will be announced around May 2007, with a proposal due for the autumn.

As part of the FEHRL study, a database of measurements on 300 tyres has been created. Fifty per cent of the tyres measured produced noise levels over 3dB(A) below the current limits. As a whole, the range is typically up to around 5 dB(A) below the current limit value, while best available technology is even 8dB(A) below that limit (FEHRL, 2006; EC, 2004).

Figure 15 Measurement data and proposed limit values for passenger car tyres



Source: FEHRL, 2006.

Proposals for tightening the Road/tyre directive

FEHRL and the German Federal Environment Agency (UBA) have both provided proposals for a tightening of the Road/tyre directive. Their limit values for passenger cars are depicted in Figure 15. The FEHRL study recommends reductions of 2.5-5.5 dB(A) for passenger car tyres and 5.5-6.5 dB(A) for commercial vehicle tyres. The German Federal Agency (UBA) has proposed reductions versus the current limit values of roughly the same order, but proposes dropping the differentiation on the basis of tyre width. Table 5 shows the proposed limit values.

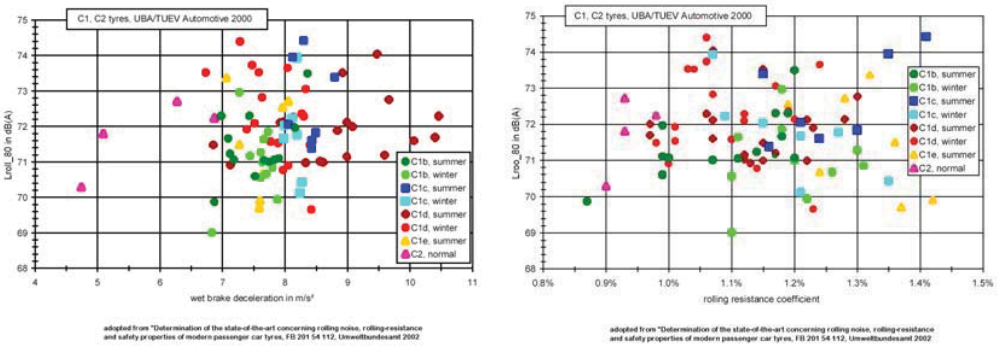
Table 5 Type approval limits (dB(A)) proposed for passenger car tyres

Tyre width R (mm)	2001/43/EG		FEHRL		UBA		
	Current	Next phase	2008	2012	2008	2012	2016
R ≤ 145	72	71	71.5	69.5	71	70	69
145 < R ≤ 165	73	72					
165 < R ≤ 185	74	73					
185 < R ≤ 215	75	74	72.5	70.5			
215 < R ≤ 245	76	75					
245 < R ≤ 275			73.5	71.5			
R > 275			75.5	73.5			

Low-noise tyres do not conflict with low rolling resistance and safety standards; see Figure 16. With respect to the former the FEHRL study (FEHRL, 2006) found no conflict at all. As regards the latter, there are many examples in the database of tyres that produce relatively low noise levels and yet perform well in terms of safety. There are indeed indications that these two characteristics are even positively associated (Sandberg, 2006).

While there is no conflict between safety (wet weather conditions) and low noise at current levels of technological development, it still needs to be monitored in the future, as it cannot be guaranteed that there will be no conflict for future tyres, as the FEHRL study concludes.

Figure 16 Correlation between low noise, safety and rolling resistance characteristics for passenger car tyres



Retreaded tyres are not covered by the Directive. This limits its effectiveness, because, somewhat surprisingly, around half the tyres used in heavy goods transport and a smaller fraction of passenger car tyres are reused.

The arguments for reducing tyre noise limits are sound not only because of the technical potential, but also from a socio-economic perspective. Several studies show that low-noise tyres are currently no more expensive than normal tyres (Sandberg, 2006; RIVM, 2003). According to the tyre industry, the costs for low-noise tyres amount to around € 2 billion per year, but in the view of FEHRL these are significantly overestimated. The benefits are significant, totalling around € 48-123 billion between 2010 and 2022, making low-noise tyres very cost-effective (FEHRL, 2006). These savings accrue to local and national authorities and hence

taxpayers, via savings on anti-propagation methods. Other benefits are lower health care costs and improved well-being.

Incentives for quieter tyres

To speed up the development of low-noise tyres, financial incentives may need to be introduced. One means of doing so may be to levy a tax on tyres or introduce some other type of financial incentive proportional to the assigned noise level. Another option is a system based on introduction of a noise-differentiated annual vehicle tax. To increase the use of low-noise tyres, the type approval rating needs to be marked on the tyre sidewall. This is easy to realise and should be part of the revision of Directive 2001/43/EC (Sandberg, 2006b).

Optimisation of tyres from a fuel-efficiency perspective is also presently under discussion. The revision of the Tyre/road noise directive will include limits pertaining to fuel efficiency, safety and noise. There is currently very little information available to consumers on these tyre performance characteristics. There are therefore also arguments for developing a consumer label for tyres that covers safety, climate and noise together[6].

4.5 Low-noise road pavements

Low-noise road surfaces, such as thin-layer, double-layer, porous and poro-elastic pavements, offer considerable potential to cut road noise dramatically, and are very complementary to technical measures to reduce engine, exhaust and tyre noise from cars and trucks. Such surface measures have the advantage of bringing immediate benefits, particularly for use in noise hotspots.

Tyre road noise explained

Tyre/road noise is a complex addition of several mechanisms of noise generation and amplification, depending on the properties of both tyres and road surface:

- Noise is generated partly by impacts and shocks on the tyre, caused by road surface irregularities or irregularities on the tyre tread. These shocks make the tyre vibrate and radiate noise. Vibrations of the tyre tread spread to the sidewalls, which then radiate the noise further.
- Aerodynamic noise sources include so-called air pumping, consisting of the noisy pushing away of air on the leading edge of the contact zone between tyre and road surface and the noisy sucking in of air along the rear edge. The resonances occurring in the tyre cavity and tread pattern canals can also be considered as aerodynamic noise sources.
- One 'micro-movement' effect is the stick/slip tread elements' motion relative to the road surface, causing the tread elements to vibrate tangentially.
- An adhesion effect is the stick/snap effect of the sudden loosening of the tyre tread from the road surface, comparable to the sudden loosening of a suction cup.
- The horn effect is a noise amplification mechanism whereby noise generated near the edge of the tyre/road surface contact area becomes amplified due to the geometry created by tyre and road surface. This is the same phenomenon intended by the conical part of a trumpet or a megaphone.

Source: EC, 2006.

[6] There are indications that this labelling needs to be different in different climatic zones. This would be a complication.

The degrees of noise reduction achieved by low-noise pavements are shown in Table 6.

Table 6 Noise reductions due to low-noise road pavements in urban and rural areas

Pavement	Urban	Rural	
	50 km/h	70 km/h	110 km/h
Two-layer asphalt	3 dB(A)	4 dB(A)	5 dB(A)
Thin layer asphalt	1.5 dB(A)	2 dB(A)	2 dB(A)

Source: Ohm, 2006.

Low-noise pavements are a cost-effective option to reduce traffic noise. KPMG (2005) indicates that low-noise asphalt can reduce investments in noise abatement measures by up to 80% compared to noise barriers. The cost reductions are greatest for intra-urban roads, because it is here particularly that low-noise pavements can reduce the need for expensive barriers.

The European Commission is planning to mandate CEN[7] to develop a European standard for low-noise asphalt. In certain Member States there are several acoustical classification systems for road surfaces, but there are no international standards on such classification nor are road surfaces checked for conformity. With such a CEN standard in place, the introduction of acoustical performance in public contracts for road surfacing might be facilitated, competition in tendering increased, and the use of lower-noise road surfaces fostered as well.

Importantly, the SILVIA project found that there are no significant differences between porous asphalts and dense asphalts with respect to either safety, rolling resistance or fuel consumption (Elvik, 2003).

4.6 Speed reduction and traffic management

The noise of a road can also be reduced by influencing the speed or flow of the traffic it carries. Limiting traffic speed reduces its noise, especially between 50 and 80km/h. As Table 7 below shows, speed limit enforcement in urban areas has a positive effect on transport noise. Traffic management often also has an effect on the number of vehicles. The table shows the noise reduction caused by a reduced traffic volume under assumption of no changes in either speed or percentage of heavy vehicles.

Although traffic management measures have relatively limited potential compared to the long-term potential of other measures, they involve only limited investments and have a direct effect, because of their limited implementation time. However, the costs associated with travel time losses may be significant.

Compliance with new speed limits is obviously important for achieving the desired effects, as illustrated in the example in the textbox.

[7] CEN is the European Standardisation Committee.

Speed reduction positive for air quality and noise
In the Netherlands, the speed limit on various motorway sections close to city dwellings was reduced in 2006 because of local non-compliance with EU air quality regulations. Compliance with the new limit, 80 instead of 100 km/h, is enforced with speed cameras that calculate average speed. This has had a positive effect on air quality, but noise emission has also been reduced by up to 1.5 dB(A), depending on local circumstances. Another effect perceived by people living close to the road sections in question is the absence of noise peaks by individual cars passing at high speed during the night.
Source: Dutch Ministry of Transport, 2006.

Traffic management measures have a positive impact not only on noise reduction but also on air quality and road safety. Reductions in traffic can be achieved by promoting public transport, encouraging cycling and walking, parking management, HGV bans, route designation and road bypasses. Other examples of traffic management include measures that induce the traffic flow to become more fluent, through smart tuning of traffic lights, for example, to avoid stop-and-go traffic as far as possible. The effects of traffic management measures is shown in Table 7 and Table 8.

Table 7 Effects of speed limit changes on noise reduction

Speed reduction (10% heavy traffic)			**Traffic reduction**	
From 110 to 100 km/h	0.7 dB(A)		10 %	0.5 dB(A)
From 100 to 90 km/h	0.7 dB(A)		20 %	1.0 dB(A)
From 90 to 80 km/h	1.3 dB(A)		30 %	1.6 dB(A)
From 80 to 70 km/h	1.7 dB(A)		40 %	2.2 dB(A)
From 70 to 60 km/h	1.8 dB(A)		50 %	3.0 dB(A)
From 60 to 50 km/h	2.1 dB(A)		75 %	6.0 dB(A)
From 50 to 40 km/h	1.4 dB(A)			
From 40 to 30 km/h	0 dB(A)			

Source: DRI, 2004.

Table 8 Effects of traffic management measures on noise reduction

Traffic management measure	**Potential noise reduction (LAeq)**
Traffic calming / Environmentally adapted through-roads	Up to 4 dB(A)
30 km/h zone	Up to 2 dB(A)
Roundabouts	Up to 4 dB(A)
Round-top/circle-top road humps	Up to 2 dB(A)
Speed limits combined with signs about noise disturbance	1 - 4 dB(A)
Night time restrictions on heavy vehicles	Up to 7 dB(A) at night time
Rumble strips of thermoplastic	Up to 4 dB(A) noise increase
Rumble areas of paving stones	Up to 3 dB(A) noise increase
Flat-top humps	Up to 6 dB(A) increase
Narrow speed cushions	Up to 1 dB(A) increase
Rumble wave devices	0 dB(A)

Source: Berndtsen, 2005.

4.7 Anti-propagation measures (noise barriers, insulation)

If the desired degree of noise reduction cannot be achieved by at-source measures, noise barriers and insulation of dwellings may be helpful in reducing propagation of the noise. On average, noise barriers reduce noise levels by 3-6 dB(A), depending on their design and height. Roadside noise barriers are only accept-

able for motorways and other bypass roads where there is no need for pedestrians to cross. On busy urban streets, which are crossed by pedestrians along their entire length, noise barriers cannot be placed directly on the kerbside. It is only in non-urban areas that they can provide a solution, therefore.

If no other measures can be adopted, or if other measures are inadequate, soundproof windows and insulated walls are the only possibility remaining for further protection against noise. To be effective, though, such windows must be kept closed, and many people have trouble adjusting to this restriction on their normal behaviour (opening windows, etc.), especially during the summer.

The average cost of a noise barrier is around € 300 per m^2, depending on its construction and the materials used (Witteveen+Bos, 2004). This is around € 2.4 million for a barrier 4 metres high and 1 kilometre along both sides of a road.

4.8 Rail transport noise

Noise is one of the most significant environmental impacts of rail traffic. Contrary to road traffic, where European emission standards have existed since the early 1970s, such emissions standards for trains only came into force at the beginning of the present century. Moreover, EU noise emission standards apply only to rail vehicles operating in more than one Member State.

European legislation addresses railway noise at-source through directives on railway interoperability for high-speed rail (Council Directive 96/48/EC) and conventional rail (Directive 2001/16/EC), which provide a legislative framework for technical and operational harmonisation of the rail network. Under this legislation, Technical Specifications for Interoperability (TSIs) are established by the Commission, which include noise limits. Within the operability framework, emission limits regarding the noise of high speed trains (2002) and conventional trains (2005) have been set. These limits apply to new or upgraded rolling stock. A reduction of the limit values by 2-5 dB(A) is foreseen for 2016/18.

Wheel and rail roughness the cause of noise

Noise from trains is basically caused mainly by the wheels rolling over the rails. This problem obviously concerns the transport of both passengers and freight, but it is far more acute in the latter case. It is the roughness of rails and wheels that causes noise. Locally higher rail roughness, caused by intensive traffic and wear and tear of wheels, may cause a rise in noise emissions of up to 5 dB(A) (EC, 2003). One of the options to reduce such emissions is therefore regular polishing of the rails. One important source of wheel and rail roughness is vehicles with tread-braked wheels. The brake pads can create a roughness on the wheel, which in turn roughens the rail over time. Replacing cast iron brake blocks by composite material blocks would therefore be beneficial for all the vehicles travelling on the same track. Reports by the International Union of Railways (UIC) as well as other studies have stated that a reduction of 8-10 dB(A) can be achieved if all tread-braked freight wagons are retrofitted with composite brakes.

There are two types of brake blocks that are made of composite materials rather than iron: K-blocks and LL-blocks. K-blocks are approved by the official authorities for international use and are most frequently applied at the moment. Although LL-blocks are more similar to conventional brake systems and cheaper to fit, they are not yet certified for international use, a procedure that may take about 2 years (from 2007). In the case of new vehicles, disc brakes can also be used.

Most recent information shows that use of K-blocks saves maintenance costs, while LL-blocks can be applied cost-neutrally. LL-blocks are already applied in the US, South Africa and Portugal for cost reasons. The aforementioned Dutch IPG programme is running tests with both K- and LL-blocks, estimating the life cycle costs of each, amongst other things.

Composite brake blocks most cost-effective

Retrofitting all the 600,000 freight wagons in use in the EU would cost around € 2-3 billion (K-blocks) according to the UIC (UIC, 2006b), but these costs may be an upper estimate, as indicated above. It is undisputed, however, that retrofitting the freight wagon fleet with composite brake blocks is most cost-effective. It is concluded by the UIC, among others, that use of such braking blocks is far more cost-effective than merely installing noise barriers. The STAIRRS project (Oertli, 2003) concludes that a combination of composite braking blocks, optimised wheels, rail absorbers, acoustic grinding and noise barriers up to 2 m high is the most effective option. Higher noise barriers should only be used if other technologies fall short (Oertli, 2003; RIVM, 2003; UIC, 2006).

Without due action, half of all freight wagons currently on the rails in the EU will still be in use in 2020 (Kunst, 2006; UIC, 2006b). The EU working group on health and socio-economic aspects has therefore advised phasing out existing rolling stock (EC, 2005). This phase-out can be achieved by introducing progressively stringent emission standards.

Track charge differentiation is promising

An important instrument for noise emission control is the rail access charge. This is the fee the operator pays the infrastructure manager for using the railway system. This charge could be differentiated on the basis of the noise emission of the rolling stock. To increase its effectiveness, it could be differentiated according to population density. Track charge differentiation would put market pressure on operators to use low-noise rolling stock and on vehicle manufacturers to invest in low-noise technology development. Subsidy programmes lack such incentives. The costs of low-noise rolling stock are borne by the rail sector rather than the taxpayer, furthermore, in line with the polluter pays principle.

Rail noise reduction in Switzerland
Since January 2002 a noise reduction bonus is encouraging infrastructure users to employ low-noise rolling stock in Switzerland. To qualify for the bonus, advanced brake technology must be used (composite blocks, disc brakes or comparable). In practice the bonus is about 5-8 per cent of the total rail access charge. The noise reduction bonus is combined with a noise reduction programme including subsidies for retrofitting all Swiss rolling stock with composite brakes (K-type). Noise barriers have furthermore been constructed under a cost-benefit constraint. The whole programme is being funded from tax increases in the road sector.
Source: UIC, 2006

In the subsidy programme outlined in the box, Swiss rolling stock benefited, while foreign operators could not claim the subsidies for retrofitting. They were consequently charged more for their use of Swiss track. The Swiss example shows that in the single market national subsidies pose the risk of discriminatory treatment of operators.

Future rail noise reduction
As wheels become smoother, track grinding and other measures also become more important. Quieter railways depend not only on rolling stock, but also on track quality. Track-related measures are cost-effective. One way to enforce grinding of major tracks would be to introduce tighter noise exposure limits at night time. For the mid and long term, rolling stock needs to be developed with noise reduction in mind.

4.9 Two-wheeled vehicle noise

Only in regions where motorcycles make up a significant fraction of the overall vehicle fleet are they are a major contributor to ambient noise levels. Although it is mainly in urban settings that this noise problem is noticed and reported, their annoyance potential is also high elsewhere because of the high percentage of illegal noise-increasing mufflers fitted and often aggressive driving behaviour. A Swedish noise annoyance study identified motorcycle noise as by far the most annoying form of vehicle-related noise. Consequently, measures to address the use of such mufflers need to be given the highest priority. In addition, all the other reduction measures cited for cars and heavy-duty vehicles, such as improvement of the type approval measurement method and lowering of noise limits, should be applied to motorcycles, too.

Directive 97/24/EC lays down limit values for two-wheeled road vehicles. These European limits are not particularly stringent, nor is the noise test technically demanding, as is demonstrated by the fact that some motorcycles pass it by a substantial margin of 4-6 dB(A) margin below the limit value.

The problem of owners tampering with their vehicle, particularly by replacing the original exhaust silencer by a less efficient one, seems to be equally serious all over Europe. Overall, the penetration of illegal exhausts in the fleet is 35% for motorcycles and 65% for mopeds.

The purpose of the type approval required for each category of vehicle is to ensure that individual vehicles meet the safety and environment requirements established by society. It is therefore patently absurd that in the case of two-wheeled vehicles many if not most of those vehicles in reality acquire quite a different, noisier performance profile, whether immediately or soon. Measures to prevent tampering should therefore be afforded the higher priority. Only after the problem of illegal noise emissions has been resolved is further tightening of noise emissions worthwhile. There is room enough for tightening of the limits, given the current margins under the limit value as well as the emission levels already being achieved in Japan.

The EffNoise study (EC, 2004) indicates that reduced use of illegal exhaust silencers could reduce motorcycle noise emissions by 5-15 dB(A), while subsequent stepwise tightening of limit values could reduce them by a further 3-6 dB(A) (EC, 2004).

5 Recommendations for action

Noise exposure is a widespread and serious health problem In the European Union and noise abatement measures should therefore be afforded greater priority than at present in the EU policy process. To this end we make the following recommendations:

- To guarantee the European population a healthier living environment, noise exposure standards should be set and enforced for several different environments (outdoor living area, dwelling interiors, schools, etc.), as is the case with current EU air quality standards. In quantifying these standards, the guidelines drawn up by the WHO could serve as a starting point. These exposure standards could then serve as an appropriate basis for the action plans prescribed in the EU Environmental noise directive.
- There needs to be greater political focus on noise policy. Traffic noise should be viewed primarily as a public health issue, rather than merely a trading standards topic. The lead at both the European and the international level should therefore be taken by public health and environmental experts.
- The most cost-effective measures are those at the level of vehicles. It is therefore these measures that should be afforded priority at the EU level.
- The instruments employed in noise policy have the potential to reduce noise emissions significantly, but to do so the limits they rest on must be made considerably more stringent. To date, though, lobbying by industry seems to have been very successful, for the limits in force have been too liberal to have had any effect. Priority should not be given merely to harmonisation, but tightening of the limits placed higher on the political agenda, to reduce the ever growing noise exposure of the EU population.
- There is already scope for tightening the noise limits for vehicle drivelines by at least 3-4 dB(A), as an initial step. After 2012 year-on-year improvement targets (x dB(A) every y years) should be introduced, outlined well in advance to give industry sufficient time to adapt.
- The current test cycle for road vehicles is sub-optimal in relation to real-world vehicle noise performance. Revision of the test cycle is a lengthy process, however, and the noise emission limits should therefore first be tightened based on the current cycle, with the cycle itself being revised in time for the next tightening of limits around 2012.
- The limits in the EU Tyre/road directive need to be tightened if new technology is to be promoted. The UBA/FEHRL proposals are a good starting point. To improve consumer information, all tyres should be labelled with their noise approval rating and rolling resistance. Retreaded tyres should be included in the directive, at least for heavy vehicles, since these account for a surprisingly high share of about 50% of the market.
- An international standard for noise road surface classification systems should be developed, laying down terms for including acoustic performance in public contracts for road surfacing.
- As an initial step to reduce the noise emissions of rail transport, the use of composite brakes on freight wagons should be promoted. The current track

charge is a promising instrument for differentiating on the basis of noise emission. The advantage of this measure over a subsidised retrofitting programme is that retrofitted wagons will be used most frequently. Combining track charge differentiation with a subsidy scheme may have adverse effects on international competition.

- Type approval procedures for LL-blocks should also be hastened, as these perform just as well as K-blocks and are regarded as more cost-effective. Since LL-blocks can applied cost-neutrally, no subsidies are necessary.

EXHIBIT D

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March 24, 2015

Via E-Mail and U.S. Mail

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Re: Proposed Denial of Ascension Heights Subdivision Project

Honorable Members of the San Mateo County Planning Commission:

This firm represents Baywood Park Homeowners' Association ("Baywood") with respect to the proposed Ascension Heights Subdivision Project ("Project"). We submit these supplemental comments in support of the Commission's stated intention to deny the Project as it is currently proposed. The issues you raised at the hearings on this Project reflected the community's serious environmental and safety concerns. In response to staff's suggestion that the Commission include findings along with a resolution denying the Project, we have also prepared draft findings, based on evidence in the administrative record, and attach them to this letter.

Environmental Impacts and Safety Concerns. During the February 25 hearing, Commissioners raised a number of fundamental concerns about the Project. For example, several Commissioners noted that the Project is too dense for the site and surrounding community. As Commissioner Hansson noted, the proposed layout fails to conform to the contours of the hillside. Bel Air is not safe under current conditions and would become even more treacherous with the addition of a blind entrance to the new development. And there is inadequate information in the EIR about the availability of water to serve this new development and the existing community. Commissioner Kersteen-Tucker correctly noted that there is far too little detail about the Project design or proposed mitigation measures to judge what the impacts will be or whether mitigation will be effective, and the EIR failed to adequately analyze the Project's impacts to schools. In addition, several Commissioners noted the potential aesthetic impacts of developing 36-ft-high homes on top of a steep hillside. These impacts will undoubtedly

be significant and cannot be mitigated through tree-planting and landscaping alone. Baywood and other members of the community have raised similar concerns and agree with the Commissioners on all of these points.

The EIR Is Inadequate and Cannot Be Certified. Baywood also continues to have serious concerns about the adequacy of the EIR for the Project. Of course, if the Commission moves forward with a denial of the Project, it need not certify the EIR. *See* Pub. Res. Code § 21080(b)(5) (projects that are denied by a lead agency are not subject to California Environmental Quality Act (CEQA)). In this instance, however, the Commission *cannot* legally certify the EIR because that document contains numerous, substantial flaws, including illegal deferral of analysis and mitigation, unsupported conclusions, and a general failure to adequately describe the Project's significant environmental impacts. *See* Letter from Winter King to Planning Commission (Feb. 24, 2015); Hearing Audio File (Commissioner Simonson noting that the FEIR is lacking basic mitigation measures and adequate analysis, especially in the chapters discussing biological resources and alternatives); *see also* DEIR at 4.3-20 – 21 (analysis of the extent and severity of impacts to special status species and Mission blue butterfly deferred; mitigation measures 4.3-1 and 4.3-2 direct Applicant to perform focused surveys *after* project approval); DEIR at 4.10-27 (stating that the sewer pipelines that would serve the proposed Project are already over capacity; mitigation measure 4.10-3 generically states that the applicant shall offset the increase in sewer flow by reducing the amount of infiltration and inflow (I & I), but fails to provide any details on how this will be accomplished or whether it is feasible).

Inconsistency with Natural Hazards Policies in General Plan. After conducting additional review of the materials presented to the Commission at the February 25 hearing, we have concluded that the Project is also inconsistent with several of the General Plan Policies found in Chapter 15 (Natural Hazards). In 2009, the Commission concluded that an earlier version of the Project was inconsistent with these policies, which direct the County to avoid siting structures "in areas where they are jeopardized by geotechnical hazards, where their location could potentially increase the geotechnical hazard, or where they could increase the geotechnical hazard to neighboring properties." Policy 15.20 (a). This policy also directs the County to "avoid construction in steeply sloping areas (generally above 30%)" "wherever possible." Policy 15.20(b).

In its January 28, 2015 report to the Commission, staff reversed course, stating that this conclusion was "incorrect." Staff Report at 9. Staff now believes that (1) these policies only apply to projects proposed in formally identified "geotechnical hazard

areas" and (2) the Project is not located within such an area because it is not within the Alquist Priolo Hazard Zone. *Id*.

Staff's new conclusion is inconsistent with the plain meaning of the General Plan. While policies 15.20(a) and (b) are both under the heading "Review Criteria for Locating Development in Geotechnical Hazard Areas," it does not appear that this heading was intended to preclude the application of these policies outside areas that are formally designated as "Geotechnical Hazard Areas." In fact, if the County had intended the heading to have such an effect, the language in Policy 15.20(c) specifying that it applies only to roads and trails "into or through geotechnical hazard areas" would be entirely redundant.

Moreover, staff's suggestion that "geotechnical hazard areas" include only those areas within the Alquist-Priolo Hazard Zone also conflicts with the General Plan. In fact, the General Plan defines "geotechnical hazards" as "non-seismic unstable conditions, including but not limited to landsliding, cliff retrenchment, erosion, subsidence, soil creep . . . .". It then defines "geotechnical hazard areas" as "areas that meet the definition of geotechnical hazards, *including but not limited to* . . . [t]he areas illustrated on the Natural Hazards map as Alquist-Priolo Special Studies Zones, Tsunami and Seiche Flooding Areas, Coastal Cliff Stability Areas and Areas of High Landslide Susceptibility." General Plan Policy 15.9 (emphasis added).

Reading these policies together, it appears that the County was right the first time: Policies 15.20(a)-(b) *do* apply to the Project because the Project site is subject to geotechnical hazards, including significant erosion, and some of the proposed residences would be located on lots with slopes greater than 30%. In addition, the County's landslide map depicts several areas of existing landslides in the immediate vicinity of the Project site. *See* San Mateo County Hazards, Existing Landslides, *available at* http://planning.smcgov.org/documents/san-mateo-county-hazards-existing-landslides. The Project's inconsistency with these policies provides another basis for denying the proposed tentative map.

Denying This Project Does Not Prohibit All Development. Finally, denying this Project as it is currently proposed does not mean that the Commission is prohibiting any and all development on the Project site. This Project first came before the Commission in 2008-2009. At that point, the Commission gave the Applicant clear direction about changes that would have to be made to develop this severely constrained property: "1) provide more moderate-sized housing, 2) address the concerns about avoiding building on the steep south facing slope, and 3) develop a new design that could

minimize negative impacts." Jan. 28, 2015 Staff Report, Attachment E, p. 2. Additionally, Commissioner Slocum shared a conceptual map with the Applicant, on which she indicated the need for a trail and/or buffer between the proposed development and existing homes on Parrott Avenue.

With the exception of reducing the number of units from 25 to 19, the Applicant has not followed these directions. The proposed Project still has four units on the south-facing slope of the Project site (with three more on the southern edge of the ridgeline); the houses are still 36 feet high and cover up to 40% of each lot;[1] the design continues to force a square-grid layout on top of extremely steep and irregular land, requiring tens of thousands of cubic yards of cut and fill, and; there is no buffer between the proposed development and existing Parrott Avenue homes. The Commission can and should require the Applicant to address these issues.[2]

In sum, Baywood strongly supports the Commission's stated intention to deny the proposed tentative map for all of the reasons identified by you and the public. To assist the Commission in finalizing its decision, we are attaching proposed findings, based on evidence in the record, that would support Project denial.

[1] Neither the Project Description chapter of the EIR nor the staff report informs the public of how many square feet each of the proposed houses could be. However, with lots varying in size from 7,500 square to nearly 16,000 square feet, the resulting houses could be enormous. For example, a three story house built on 40% of a 7,500 square foot lot would be close to 9,000 square feet. Performing the same calculation on the 16,000 square foot lot results in a 19,000 square foot residence.

[2] The Applicant also failed to follow the Commission's clear direction to work with the community to develop a more suitable design. Although there have been public meetings on this Project, the Applicant has made it clear to those in attendance that he had no intention of modifying the Project in response to the community's concerns.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Winter King

Attachment

666422.1

Ascension Heights Subdivision:
Recommended Findings in Support of Project Denial

Regarding the Environmental Review, Find:

1. That a project denial is not subject to California Environmental Quality Act (CEQA), and therefore the request to certify the EIR is also denied. *See* Pub. Res. Code § 21080(b)(5). In addition, the Commission has reviewed the Final Environmental Impact Report (FEIR), and has found that it is inadequate in the following ways:

   (a) It does not include adequate analysis of the Project's potential impacts to biological resources. Rather than conducting the required analysis now, it defers the analysis until after Project approval and likewise defers development of mitigation measures. This deferred analysis appears in other chapters of the EIR as well, including:

   - Aesthetics. *See* RDEIR at 4.1-14 (noting that the Landscape Plan and Tree Replacement Plan—the only proposed mitigation for the project's aesthetic impacts—need not be developed until after project approval).

   - Geology and Soils. *See* RDEIR at 4.4-12 and 4.4-13 (deferring the development of an erosion control plan and the adoption of specified "erosion control BMPs" until after project approval and failing to provide any substantial evidence that these measures would mitigate erosion impacts to a less than significant level).

   - Hydrology. *See* RDEIR at 4.10-27 (failing to provide any details about how the project applicant will achieve sufficient reduction in infiltration and inflow in order to mitigate the effect of increased discharge to an already over-burdened sewer line).

   - Traffic. *See* RDEIR at 4.11-10 (proposing a handful of non-mandatory design suggestions to mitigate the traffic impacts associated with a hazardous intersection).

   (b) The EIR incorrectly concludes that the Project will not have a significant aesthetic impact even though the photo simulations plainly show the impacts will be significant from nearby public streets. The Commission has not been presented with a landscape plan and thus has no basis to conclude that landscaping alone will reduce these impacts to a level of insignificance.

   (c) Members of the public have identified additional flaws in the EIR, including repeated instances of the failure to adopt enforceable mitigation measures. For example, the requirement of a 250-foot buffer around active raptor nesting sites is unenforceable because it can be disregarded if the buffer is "impractical" or "unfeasible." In some instances, the FEIR fails to support its findings of less than significant impacts with substantial evidence, for example, by basing its analysis of biological impacts on poorly timed and inadequate surveys of existing biological conditions. The document likewise

contains inadequate analysis and mitigation of impacts to geology and soils, air quality and greenhouse gas emissions, hydrology, noise, and traffic.

Regarding the Major Subdivision, Find:

2. That the proposed map is inconsistent with the applicable County general and specific plans. According to the EIR, the subdivision will cause significant adverse impacts to wildlife and associated habitat, such as impacts to raptor nesting and foraging sites and impacts to special status species such as the Mission blue butterfly. As noted above, the EIR fails to identify adequate, enforceable, and concrete mitigation measures for these impacts. As a result, the proposed subdivision violates General Plan Policies 1.23 (Regulate Development to Protect Vegetative, Water, Fish and Wildlife Resources), 1.24 (Regulate Location, Density and Design of Development to Protect Vegetative, Water, Fish and Wildlife Resources), 1.25 (Protect Vegetative Resources), 1.27 (Protect Fish and Wildlife Resources), 1.28 (Regulate Development to Protect Sensitive Habitats). For the same reason, the proposed subdivision would also cause severe, unmitigated impacts to the area's hydrology and soils. These impacts violate the following General Plan Policies: 2.17 (Regulate Development to Minimize Soil Erosion and Sedimentation), 2.23 (Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion), 2.25 (Regulate Topsoil Removal Operations Against Accelerated Soil Erosion), 2.29 (Promote and Support Soil Erosion Stabilization and Repair Efforts); and 16.2 (Reduce Noise Impacts Through Noise/Land Use Compatibility and Noise Mitigation). Finally, the proposed map would permit development of large residences on steeply sloped lots subject to severe erosion in direct violation of General Plan Policies 15.20(a) and (b). *See* General Plan Policy 15.20(a) (avoiding siting structures in areas where they are jeopardized by geotechnical hazards or where they could increase the geotechnical hazard to neighboring properties); 15.20(b) (avoid construction on steeply sloping areas in Geotechnical Hazard Areas).

3. That the site is physically not suitable for the type and density of residential development proposed there. Although the site is physically suitable for some residential development, it is not physically suitable for the density or size of residences proposed. The site is constrained by severely sloped hillsides and the Project, as proposed, would require extensive grading. The Commission has reviewed the Project, the site, and the materials in the record (including the alternatives analysis in the EIR), and believes that a less dense development could be proposed that would fit more naturally within the contours of the site and require far less grading. This reduced grading will also reduce construction-related impacts, including truck traffic on the already congested Bel Aire Avenue, the admittedly significant noise impacts, etc. A reduced density alternative would also reduce the amount of new impervious surface created on the Project site, and thus would reduce the Project's stormwater runoff, water quality, and erosion impacts.

4. That the design of the subdivision is likely to cause substantial environmental damage, or substantially and avoidably injure wildlife and its habitat. As described above (in the EIR findings), the Commission finds that the EIR does not identify enforceable or effective mitigation measures for all of the Project's potentially significant impacts, and

thus, without such mitigation measures, the Project would likely cause substantial environmental damage or injure wildlife.

5. That the design of the subdivision is likely to cause serious public health problems. As members of the public have commented, the Project will create significant noise impacts during construction and could have significant air quality impacts on neighboring communities and schools. Again, a reduced density alternative designed to fit on the contours of the site could require less grading and thus reduce these public health impacts.

Regarding the Grading Permit, Find:

6. That this project, even as conditioned, will have a significant adverse effect on the environment. As described above, the Commission has reviewed the EIR for the Project and considered comments by the public and Applicant. The EIR does not contain adequate, concrete, and enforceable mitigation measures for all of the Project's potentially significant impacts. As a result, it will have a significant, adverse effect on the environment. For example, the EIR concludes that the Project could have significant impacts related to erosion and sedimentation. DEIR at 4.4-12. Mitigation Measure 4.4-1b defers analysis of feasibility of measures to control surface runoff and prevent pollution of site runoff due to erosion and sedimentation. DEIR at 4.4-13. The EIR also concludes there could be significant impacts to surface and groundwater quality from project-related increased stormwater. DEIR at 4.6-11. While Mitigation Measures 4.6-1 includes a list of potential BMPs that could be applied to reduce these impacts, the measure does not require any specific BMPs to be included, much less demonstrate their sufficiency.

7. That this project, as conditioned, fails to conform to the criteria of the San Mateo County Grading Ordinance and is inconsistent with the General Plan for the reasons stated above in Finding Number 2.

666746.2

EXHIBIT E

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Re: Ascension Heights Subdivision Project

Honorable Members of the San Mateo County Planning Commission:

This firm represents the Baywood Park Homeowners' Association ("Baywood") with regard to the Ascension Heights Subdivision Project ("Project"). Baywood is an association of homeowners and residents who live immediately adjacent to the proposed Project. As discussed in Baywood's detailed comment letters on the Draft Environmental Impact Report ("DEIR"), these residents have serious concerns about the proposed Project's potential environmental impacts and consistency with applicable land use regulations, as well as the DEIR's analysis of the Project's impacts. Baywood is also concerned about the Project applicant's failure to follow the specific direction provided by this Planning Commission in 2009—including direction to meet with the community and avoid building on the steep south-facing slope of the Project site.

Our preliminary review of the Final Environmental Impact Report ("FEIR") and Revised Draft EIR ("RDEIR") (together, "EIR") leads us to conclude, as Baywood has in its comments, that these documents contain substantial analytical flaws and informational omissions that render them inadequate under the California Environmental Quality Act.[1] As described below, the EIR repeatedly defers both analysis of impacts and development of mitigation until after Project approval, which is strictly prohibited under CEQA. The EIR and proposed resolutions attached to the January 28 staff report also fail to identify and require adequate mitigation for the Project's identified impacts.

[1] Public Resources Code § 21000 et seq. (hereinafter "CEQA"); Cal. Code of Regulations, tit. 14, § 15000 et seq. (hereinafter "Guidelines").

Nor do the proposed findings contained in the January 28 staff report support the conclusion that the Project complies with other land use regulations, including the County's General Plan state planning and subdivision laws. *See, e.g.*, Gov't Code § 65000 et seq.; Gov't Code §§ 66473.5 & 66474.

Given these inadequacies, it is our opinion that the County cannot approve the Project as proposed and must, at a minimum, recirculate a revised DEIR that addresses the inadequacies identified in this letter and in the previous comments submitted by Baywood.

I. The EIR Fails to Adequately Analyze the Project's Potential Environmental Impacts or Identify Adequate Mitigation Measures.

The discussion of a proposed project's environmental impacts is at the core of an EIR. *See* CEQA Guidelines, § 15126.2(a) ("[a]n EIR shall identify and focus on the significant environmental effects of the proposed project"). An EIR must effectuate the fundamental purpose of CEQA: to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." *Laurel Heights Improvement Assn. v. Regents of the University of California,* 6 Cal. 4th 1112 at 1123 (1993). To do so, an EIR must contain facts and analysis, not just an agency's bare conclusions. *Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal. 3d 553, 568 (1990).

An EIR must also identify feasible mitigation measures to minimize significant environmental impacts. CEQA Guidelines, § 15126.4. Under CEQA, "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. . . ." Pub. Res. Code § 21002. California courts have made clear that an EIR is inadequate if it fails to suggest feasible mitigation measures, or if the proposed mitigation measures are so undefined that it is impossible to evaluate their effectiveness. *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 79.

Moreover, the formulation of mitigation measures may not properly be deferred until after Project approval. Rather, "[m]itigation measures must be fully enforceable through permit conditions, agreements, or legally binding instruments." CEQA Guidelines § 15126.4(a). The record must also contain substantial evidence of the measures' feasibility and effectiveness. *Sacramento Old City Assn. v. City Council of*

Sacramento, 229 Cal. App. 3d 1011, 1027 (1991); *Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 726-29 (1990).

As explained below, the EIR's environmental impacts analysis is deficient under CEQA because it fails to provide the necessary facts and analysis to allow the County and the public to make informed decisions about the Project and its environmental impacts. The EIR also impermissibly defers analysis and the development of mitigation until after project approval—clear violations of CEQA. Finally, the conclusions drawn in the EIR regarding the significance of Project impacts and the adequacy and efficacy of mitigation are not supported by evidence. For all of these reasons, the RFEIR, like the DEIR and original FEIR, is inadequate under CEQA.

A. Aesthetics

Under CEQA, it is the State's policy to "[t]ake all action necessary to provide the people of this state with . . . enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities." CEQA § 21001(b) (emphasis added). "A substantial negative effect of a project on view and other features of beauty could constitute a significant environmental impact under CEQA." *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water District* (2004) 116 Cal.App.4th 396, 401. No special expertise is required to demonstrate that the Project will result in significant aesthetic impacts. *Ocean View Estates*, 116 Cal.App.4th at 402 ("Opinions that the [project] will not be aesthetically pleasing is not the special purview of experts."); *The Pocket Protectors v. City of Sacramento* (2005) 124 Cal.App.4th 903, 937 ("[N]o special expertise is required on this topic.").

As explained by the court in *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1606, it is "self-evident" that replacing open space with a subdivision will have an adverse effect upon "views and the beauty of the setting." Here, the EIR concludes that the proposed Project, with its 19 large new residences perched on hillsides, looming over the existing neighborhood, will have potentially significant aesthetic impacts. RDEIR at 4.1-14. And the visual simulations support this conclusion. RDEIR, Figures 4.1-2a and -2b.

The only mitigation measures identified and proposed for adoption, however, are the adoption and implementation of a landscape plan and a tree replacement plan. MM 4.1-1a and -1b. Neither of these plans are presented with the EIR, though. In fact, they need not be developed until after Project approval. RDEIR at 4.1-14. As a

result, there is no way for the public or decisionmakers to know whether these plans will actually reduce the Project's impacts to a level of insignificance.

B. Biological Resources

A fundamental purpose of CEQA is to ensure that decisionmakers and the public are aware of the potential environmental impacts of a proposed project before deciding whether to approve it. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450. As a result, courts have repeatedly held that an EIR must identify and analyze such impacts; deferring this analysis until after project approval is strictly forbidden. *Id*. at 441.

The EIR's biological resources section repeatedly violates this clear CEQA mandate. Rather than conducting thorough and timely biological surveys *now*, so that the public and decisionmakers know what the Project's impacts will be, the EIR defers this analysis until some future date after the Project is approved. For example:

- Impact 4.3-1: The survey conducted to identify special status plant species "was conducted outside of the evident and identifiable bloom period for . . . seven species." MM 4.3-1 requires *post-approval* "focused botanical survey during the month of May" to determine whether the Project will impact these seven species.

- Impact 4.3-2: Members of the public observed Mission blue butterfly on the Project site. MM 4.3-2 requires *post-approval* "focused survey" during appropriate identification periods for adults (March-July) or juveniles (wet season).

- Impact 4.3-6: The EIR notes that the Project has the potential to "remove trees protected [by] the [County's] tree preservation ordinance." However, there is no information in EIR itself about how many protected trees will be affected by the development. Instead, MM 4.3-6 requires a *post-approval* survey "documenting all [protected] trees." This measure does not specify the survey area, a critical element of analysis, as the proposed Project could harm protected trees on neighboring properties, too.

The County must conduct these studies—and thus identify all potentially significant impacts to biological resources—before considering the proposed Project approvals. *See Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 (a

lead agency may not simply jump to the conclusion that impacts would be significant without disclosing to the public and decision makers information about how adverse the impacts would be). Any new information resulting from these studies must then be provided to the public in a recirculated DEIR.[2]

The EIR also defers the development of mitigation measures until after these post-approval surveys are complete, in direct violation of CEQA. *See San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 670; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92, 94 (rejecting mitigation measures for greenhouse gas emissions that merely required applicant to create plan after project approval). Many of these yet-to-be-developed mitigation measures are contingent on a future determination of whether mitigation is feasible. For example:

- MM 4.3-1: If post approval survey finds special status plant species, a buffer shall be created "if feasible." If the buffer is not feasible, a qualified botanist "would" salvage and relocate plants. There is no evidence to support the feasibility or effectiveness of either mitigation measure.

- MM 4.3-2: If Mission blue butterflies are observed and avoidance (through creation of a buffer zone) is infeasible, a qualified biologist will "establish . . . appropriate action following contact with CDFW."

This deferral of mitigation patently violates CEQA and renders the proposed CEQA findings—which conclude the Project will have no significant impact on biological resources—completely hypothetical and unsupported. *See Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1027 (The record must also contain substantial evidence of the measures' feasibility and effectiveness).

The EIR also notes that the Project site is suitable raptor foraging habitat and a white-tailed kite was observed foraging over the site during the July 25, 2013 survey. RDEIR at 4.3-22. Nonetheless, the EIR fails to identify any mitigation for the

[2] It is also unclear from the EIR whether CDFW was consulted as a Responsible or Trustee Agency for the Project. Moreover, as Baywood has noted, a late July survey in 2013 was unlikely to discover Mission blue butterflies, even if they are present on the site, because there was minimal rain that spring, and the lupin bloomed early and peaked in May.

loss of this foraging habitat, focusing instead exclusively on mitigation for the Project's potential impacts to breeding habitat. RDEIR at 4.3-22 through 23.

Several of the biological resource mitigation measures identified in the EIR (and proposed for adoption in the draft resolutions) are also plainly unenforceable and/or do not support the conclusion that the Project's impacts have been mitigated to a level of insignificance. For example, the EIR concludes that the project could have potentially significant impacts on nesting raptors. RDEIR at 4.3-22. At first blush, MM 4.3-4b and -4c appear to require a 250-foot buffer around active raptor nests discovered in pre-construction surveys. These measures contain a blanket exception to this buffer, however, if it is "impractical" or "infeasible." In that event, the only "mitigation" is the statement that "guidance from CDFW will be requested." RDEIR at 4.3-24. Neither the EIR nor the proposed resolutions even require the applicant to comply with CDFW's guidance. *See also* MM 4.3-3a (requiring pre-construction surveys to determine whether there are any active northern harrier, burrowing owl, or white-tailed kite nests in the area. If there are, then "CDFW shall be consulted" to develop avoidance measures. If CDFW determines that a "take" may nonetheless occur, the applicant must obtain a take permit.)

C. Geology and Soils

The EIR concludes that the massive grading and earth-moving activities required to develop the Project could result in "substantial soil erosion and loss of topsoil from the project site." RDEIR at 4.4-12. Yet the EIR once again defers the development of mitigation measures until after Project approval, and provides no performance standards to guide that development. Thus, MM 4.4-1a and 4.4-1b simply require the identification and implementation of unspecified "erosion control BMPs" and the development of an erosion control plan. Because these deferred measures contain no performance standards or other mandatory requirements to ensure that they will sufficiently reduce the Project's impacts, they violate CEQA, and the proposed findings concluding this impact will be reduced to a level of insignificance are unsupported.

D. Air Quality and GHG

The EIR estimates that Project construction would result in 957.68 MT of CO2e during the one-year construction period. The EIR then notes that neither CARB nor BAAQMD have established a construction threshold for GHG emissions. Nonetheless, the State has established a goal of reducing GHG emissions "by 26%" through adoption of AB 32. Therefore, the EIR identifies as a mitigation measure the requirement that the Project proponent purchase 249 MT worth of CO2e emissions reduction credits

(reflecting "a 26% reduction" in the total construction emissions for the Project) to maintain consistency with AB 32's goal.

The flaw in this reasoning is that it fails to reveal that AB 32 actually established a goal of *reducing* GHG emissions statewide. Thus, simply offsetting some of the new GHG emissions from the Project does nothing to achieve this goal over overall GHG reduction. *See generally Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2014) 231 Cal.App.4th 1056.

The EIR's air quality analysis also omits essential analysis and understates the Project's potential impacts. Baywood commented extensively on these errors and omissions. For example, Baywood noted that the analysis did not take into account impacts on nearby schools, which would be affected by construction emissions due to the particular geography and meteorology in the area. Likewise, neither the EIR nor the findings provides evidence to support the conclusion that the proposed mitigation would reduce construction impacts to a level of insignificance. Instead of providing the missing analysis and information, the FEIR simply attempts to defend the RDEIR's flawed approach. More is required for adequate responses to comments.

E. Hydrology

The EIR's analysis of the Project's hydrology impacts is similarly flawed. First, the EIR acknowledges that the Project, which would create more than two new acres of impervious surface, would have potentially significant impacts on the area's water quality if left unmitigated. The EIR then states that these potentially significant impacts will be mitigated to a level of insignificance by "the proposed on-site detention and drainage systems . . . described in Section 3.4." RDEIR at 4.6-14. Section 3.4, however, includes only the most generic and cursory description of the proposed stormwater treatment measure, making it impossible to evaluate the system's efficacy.

Moreover, the brief description of the stormwater treatment measure suggests it does not comply with the requirements of the County's current NPDES permit, Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, NPDES Permit No. CAS612008, adopted October 14, 2009 and revised November 28, 2011 ("MRP"). The C.3 portion of the MRP, which refers to post-construction stormwater management for new development and redevelopment projects, requires Low Impact Development ("LID"). The Project as proposed includes centralized detention basins, which are not LID features.

The goal of LID is to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source. Practices used to adhere to these LID principles include measures such as rain barrels and cisterns, green roofs, permeable pavement, preserving undeveloped open space, and biotreatment through rain gardens, bioretention units, bioswales, and planter/tree boxes. LID also limits disturbance of natural water bodies and drainage systems; minimizes compaction of highly permeable soils; protects slopes and channels; and minimizes impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies. Here, no LID designs or features appear to be incorporated or required into the Project.

In addition, the EIR does not actually include any supporting analysis for its conclusion that the proposed stormwater treatment measure will reduce the project's runoff impacts to a level or insignificance or comply with the County's NPDES requirements. See *Santa Clarita Organization for Planning the Environment v. County of L.A.*(2003) 106 Cal.App.4th 715, 722 (agency's analysis must be contained in the EIR, not "scattered here and there in EIR appendices").[3] While it appears the County had a hydrology report discussing these measures in more detail, the County was required to include this analysis in the EIR itself. "Decision-makers and the general public should not be forced to sift through obscure minutiae or appendices in order to ferret out the fundamental assumptions that are being used for purposes of the environmental analysis." *San Joaquin Raptor Rescue Center*, 149 Cal.App. 4th at 659; see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 ("The data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project.") Moreover, the County did not even provide this report to the public until after the first Planning Commission meeting on the revised Project had occurred, thus preventing Baywood from preparing complete comments on this document during the public comment period.

Finally, it appears that the stormwater treatment measures proposed to mitigate the Project's stormwater runoff impacts will only be capable of handling a 10-

[3] It is also unclear whether the particular treatment measure proposed will work on the steep slopes of the Project site. Baywood repeatedly asked for evidence that this technology had been safely and successfully used in similar topography, but was provided with no evidence that it had.

year storm event. RDEIR at 4.6-16. While MM 4.6-3b requires increasing the size and capacity of two stormwater drainage pipes, the EIR fails to explain how this measure with prevent significant runoff impacts during a more severe storm event.

F. Noise

The EIR establishes a number of criteria for determining whether the proposed Project's noise impacts would be significant. *See* RDEIR at 4.8-10 through 11. One of these criteria is whether the Project would expose people to noise levels in excess of standards established in the County's general plan or ordinances. RDEIR at 4.8-10. Other, standalone criteria include whether the Project would cause "[a] substantial temporary or periodic increase in ambient nosie levels," and whether the Project would expose people to "noise levels in excess of . . . 60 dB Ldn, exterior or 45 dB Ldn, interior." RDEIR at 4.8-11.

The EIR then goes on to demonstrate that the Project would, indeed, cross these significance thresholds by exposing nearby residents to excessive construction noise—reaching 85 dBA Lmax "at the nearest sensitive receptor northeast of the project site." RDEIR at 4.8-12.[4] The EIR also states that there is no feasible noise mitigation available to consistently reduce these construction noise levels below 60 dbA.

Given these facts, the EIR was required to conclude that the Project would have significant, unmitigable noise impacts: The construction noise clearly exceeds one of the County's own significance thresholds and the EIR asserts that there is no feasible mitigation available to prevent this exceedence. Instead, the EIR concludes that the Project is "exempt" from this threshold due to a County Noise Ordinance that exempts certain construction activities from the prohibitions contained in that ordinance. RDEIR at 4.8-12; *see also id.* at 4.8-6 through 8. However, CEQA requires lead agencies to consider more than just a project's consistency with local ordinances. It requires analysis of the project's actual environmental impacts. *See Protect the Historic Amador Waterways v. Amador Water Agency,* 116 Cal. App. 4th 1099, 1108-09 (2004) (environmental effect may be significant despite compliance with such requirements). Here the noise impacts are admittedly significant (regardless of whether they also violate

[4] As Baywood pointed out in its previous comments, even these high noise levels appear to understate the Project's true impacts, as they account for noise from only one piece of noisy construction equipment operating at any one time. *See, e.g.*, FEIR at 4.8-1.

the County Noise Ordinance). Thus, the County was required to inform decisionmakers and the public of this significant impact.

G. Traffic

As with noise, the EIR concludes that the Project will have potentially significant transportation and circulation impacts. Specifically, the Project "has the potential to substantially increase hazards due to the design of the new private street and proposed intersection with Bel Aire Drive." RDEIR at 4.11-10. However, the principal mitigation measure identified to reduce this impact—MM 4.11-4—is neither mandatory nor enforceable. Instead, this measure simply suggests that this hazardous intersection "should" be designed without walls, fences, signs, trees, shrubbery, or parked cars blocking motorists views. Because this measure is not mandatory, there is no basis for the conclusion that it will reduce this transportation impact one bit.[5]

II. The Proposed CEQA Findings Are Insufficient.

Under CEQA, a lead agency cannot approve a project with significant environmental impacts without first finding that there are no feasible mitigation measures or alternatives that could lessen these impacts. *See* CEQA § 21002, 21002.1(b), 21081; Guidelines §§ 15091(a), 15091(b), 15093(b); *see also Uphold Our Heritage v. Town of Woodside*, 147 Ca. App. 4th 587 (2007). Moreover, the agency must make findings, supported by substantial evidence, demonstrating how the mitigation measures adopted by the agency will actually reduce environmental impacts to a level of insignificance. *See id*.

The proposed findings contained in the staff report do not satisfy this requirement. Many of them lack any explanation of how proposed mitigation measures will reduce Project impacts to a level of insignificance. And there are no findings (much less substantial evidence) to support the conclusion that there are no feasible, less impactful alternatives.[6]

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[5] Moreover, MM 4.11-3, which requires the Project to include certain street lighting on the private street, will do nothing to prevent accidents caused by motorists who cannot see oncoming traffic due to physical obstacles, such as fences and parked cars.

[6] The EIR also impermissibly and artificially limits the environmental advantages of these reduced density alternatives by stating that they, unlike the Project, would not

Finally, if the County wishes to approve the Project despite its significant impacts, it must make and adopt a statement of overriding considerations. *See City of Marina v. Bd. of Trustees of the Cal. State Univ.* (2006) 39 Cal.4th 341, 368 (citing § 21081(b)). No such proposed findings are included in January 28 staff report.

III. Approval of This Project Would Violate the Subdivision Map Act.

The proposed Project requires approval of a tentative subdivision map. *See* DEIR at 3.0-13. As a result, the County must comply with the Subdivision Map Act. This statute requires that a tentative map approval be consistent with the local general plan. *See* Gov't Code §§ 66473.5; 66474; *see also Friends of "B" Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 998 (Subdivision Map Act expressly requires consistency with general plan). Approval of a project that is inconsistent with the general plan violates the Subdivision Map Act and may be enjoined on that basis. *See Friends of "B" Street*, 106 Cal.App.3d at 998 ("City approval of a proposed subdivision … may be enjoined for lack of consistency of the subdivision map with the general plan."); *see also* City of Pittsburg Municipal Code § 17.20.060 (to approve a tentative map, the following findings must be made, among others: 1) the proposed map is consistent with the general plan and any applicable specific plan, or other applicable provisions of [the municipal] code; 2) the site is physically suitable for the proposed density of development; and 3) the design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat).

Here, the site is not physically suitable for the proposed density of development given the excessive slopes. In 2009, Baywood submitted expert comments indicating that substantial retaining walls will be needed to build on the up-sloping lots. Many of these lots are still proposed for development. As Baywood has pointed out in previous comments, piecemeal development of these retaining walls could leave certain lots essentially unbuildable. Likewise, the arborist report submitted by Baywood shows that the Tree Protection Zones required to protect existing trees (both on and off the Project Site) could also render portions of these identified building sites unbuildable.

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require improvement of the site's existing drainage issues. *See, e.g.*, RDEIR at 6-4. There is no reason why the alternatives could not include a similar requirement.

Given these physical constraints on development, the County cannot make the findings required to approve the proposed subdivision map.[7]

IV. Conclusion

For all of these reasons, we believe the EIR for the Project fails to comply with CEQA, and the proposed findings included in the January 28 staff report are insufficient to support approval of the Project. As a result, the Planning Commission cannot approve the Project based upon this record. We respectfully urge the County to direct the applicant and the Planning Department to correct the EIR's deficiencies and work with the community to resolve the remaining issues.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

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[7] These inconsistencies between the information on the proposed tentative map and the EIR's description of the Project and potential mitigation measures also render the Project description section of the EIR inadequate.

County of San Mateo - Planning and Building Department

ATTACHMENT J

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January 8, 2016

VIA E-MAIL

James Castañeda, AICP
County of San Mateo
Planning & Building Department
455 County Center
Redwood City, CA 94063

Re: Ascension Heights Subdivision Project

Dear Mr. Castañeda:

We are writing on behalf of our client, San Mateo Real Estate, Inc., the applicant for the proposed 19-home Ascension Heights Subdivision Project (the "Project"). As you know, the Planning Commission approved the Project on October 14, 2015. The Baywood Park Homeowners Association filed an appeal of the Planning Commission's approval of the Project, which is scheduled to be heard by the Board of Supervisors on January 26, 2016. We believe that the Planning Commission's approval of the Project should be upheld for the myriad reasons previously articulated by the applicant, County staff, and the Planning Commission. To assist the staff and the decision-makers in that regard, we respectfully submit below suggested clarifying changes to the Findings, Conditions of Approval, and Resolutions as approved by the Planning Commission.

I. COMMENTS ON FINDINGS AND CONDITIONS OF APPROVAL.

A. Findings.

1. Environmental Review.

We suggest that the Findings be modified slightly to track CEQA Guidelines section 15090. For instance, the Findings should note that the EIR was "completed in compliance" with CEQA, reflects the agency's independent judgment "and analysis," and "was presented to the Board of Supervisors as the decision-making body of the County and that the Board of Supervisors reviewed and considered the information contained in the EIR prior to approving the project."

Here, the FEIR is referred to as the Revised FEIR and in other documents it is referred to as the FEIR. For ease of reference, it may be simpler to refer to the document proposed for certification as the "EIR," noting that the EIR consists of the Draft EIR, the Final EIR, and the Errata to the EIR. Also note that the Final EIR is comprised of two volumes: Volume I-Response to Comments and Volume II-Revised Draft EIR.

We also suggest that the staff add a finding to note that technical revisions have been made to certain mitigation measures as reflected in the Mitigation Monitoring and Reporting Plan ("MMRP") and that all of the revised mitigation measures are equal or more effective than the original measures in avoiding or substantially lessening the significant environmental effects of the Project. We suggest adding this same finding to the resolutions certifying the EIR and adopting the MMRP and CEQA Findings.

2. Major Subdivision.

We suggest that the staff add a finding specifying that the design and improvement of the proposed subdivision is consistent with the County General and specific plans. *See* County Subdivision Ordinance § 7013(3)(b). We also suggest that finding 5 be revised to specifically note that the site is physically suitable for the type of development and the proposed density of development. *Id*.

3. Grading Permit.

We suggest revising this finding slightly to note that the granting of the "permit" will not have a significant adverse effect on the environment. *See* County Grading Ordinance § 8604.6(a).

B. Conditions.

We respectfully request that the following changes be made to the conditions of approval as approved by the Planning Commission:

- Condition 8.a: revise reference to Condition 8.l to reference Condition 8.j. Also revise this condition per the Planning Commission's action to specify that landscaping must minimize fire hazards and use water-efficient irrigation systems and to reference the 30-day public review and comment period on the submitted landscaping plan.

- Condition 8.b: replace "shall not exceed" with "shall comply with" in the first paragraph; strike "or more" in the first and second bullets.

- Condition 8.c: add back first bullet regarding covering trucks off-hauling materials.

- Condition 8.w: specify location of existing 30-inch diameter storm water drain pipe.

- Condition 8.a.i: replace all instances of "should" with "shall."

- Condition 15: revise condition per the Planning Commission's action to require that the hauling plan address traffic and safety control measures, including the provision of flagging personnel.

- Condition 19a(a): revise to read "The subdivision shall not be gated or restrict access in any way to the general public in order to provide public access and use of the sidewalks and proposed trail system and overlook areas from sunrise to sunset in accordance with County Park Department standards."

- Condition 19a(b): insert "average" after "maximum."

- Condition 19a(c): revise to read "Dwelling designs shall incorporate styles presented as part of the Ascension Heights Design ~~Guidelines~~ Handbook proposed by the applicant and presented to the Planning Commission on October 14, 2015 and included as Appendix J to the Final EIR."

II. COMMENTS ON RESOLUTIONS.

A. Resolution Certifying EIR.

We suggest that the clarifying changes listed below be made to this resolution.

On page 1, move the second recital to the top of page 2 so that it is in chronological order and correct the date in the third recital to October 4, 2013.

On page 3, add a recital to indicate the date and contents of Volume II of the Final EIR and strike the second recital which duplicates the recital on page 2. Also add a recital describing the date and contents of the Errata to the EIR.

On page 4, replace "prepared in accordance" with "completed in compliance" in item 1; add "and analysis" after "judgment" in item 4; and replace "and processed in accordance" with "in compliance" in item 5. On this same page, add an item noting that "the EIR was presented to the Board of Supervisors as the decision-making body of the County and the Board of Supervisors reviewed and considered the information contained in the EIR prior to approving the project."

B. Resolution Adopting the MMRP and CEQA Findings.

1. MMRP.

We suggest that the clarifying changes listed below be made to this resolution.

On page 1, in the second paragraph, change "21801" to "21081" and add a note explaining that technical corrections have been made to the EIR mitigation measures, with additions shown by underlining and deletions shown by strike-through.

2. CEQA Findings.

We respectfully request that the staff make the clarifying changes listed below to the CEQA Findings.

In general, we ask the staff to please ensure that the mitigation measures reflect the text of the final MMRP. We also ask the staff to confirm that all of the findings match the text of Public Resources Code section 21081: "Changes or alterations have been required in, or incorporated into, the Project[1] which mitigate or avoid the significant effects on the environment." We also suggest that findings be added rejecting the alternatives as infeasible and/or for failing to achieve most of the basic project objectives.

On page 3, under Impact 4.1-1, revise the first sentence to match the description of the impact on EIR page 4.1-13 and to correct misspelling of Parrott Drive.

On page 4, correct cross-reference to Condition 8.j in line 2 and make revisions to Mitigation Measure 4.1-1b as noted in Condition 8.b above. Under "Facts in Support of the Findings," add reference/discussion of Ascension Heights Design Handbook and in next to last sentence, replace "consistent" with "consist" and "if" with "in."

On page 5, strike reference to "or require all trucks to maintain at least 2 feet of freeboard" in the first bullet under Mitigation Measure 4.2-1a.

On page 6, under Impact 4.2-8, replace "gasses" with "gases" and explain that when measured against the operational threshold, the Project's construction-related greenhouse gas emissions would be less than significant even assuming they were all to occur in one year or, alternatively, if amortized over 30 years and added to annual operational emissions as is customary in several jurisdictions.

On page 7, under Impact 4.3-3, replace "This is a potentially significant impact" with text added on EIR page 4.3-23. In the next paragraph, spell out California Department of Fish & Wildlife before abbreviating it as CDFW.

On page 9, under Impact 4.3-4, replace "These impacts are significant" with text added on EIR page 4.3-25. In this same paragraph, spell out Migratory Bird Treaty Act before abbreviating it as MBTA.

On page 10, under Impact 4.3-6, strike "This impact is significant."

On page 11, under "Facts in Support of the Findings," strike 4.3-1 and 4.3-2 and under Impact 4.4-1, spell out best management practices before abbreviating it as BMPs.

On page 14, insert discussion of Impact 4.4-4.

[1] Sometimes, the findings refer to the project as the "Proposed Project" and other times as the "Project." We suggest revising references throughout the findings to be consistent.

On page 19, revise Mitigation Measure 4.6-3b per comments to Condition 8.w above.

On page 21, under Impact 4.7-2, strike "This is considered a potentially significant impact."

On page 23, before "Facts in Support of the Findings," insert discussion of Impact 4.7-5. We also recommend further explaining the rationale and conservative nature of the significant construction noise impact (Impact 4.8-1) given that construction activities will be less than 90 dB and prohibited from occurring outside the hours authorized by the County Noise Ordinance.

On page 24, before "Facts in Supports of the Findings," insert discussion of Impact 4.8-2; under Impact 4.10-2, discuss location of existing storage tank and add discussion of significant cumulative impact.

On pages 25-26, under Impact 4.10-3, add discussion of significant cumulative impact. On page 26, before Impact 4.10-5, add reference to Mitigation Measures 4.6-3a and b and add these measures to the list of mitigation measures in "Facts in Support of the Findings" at the end of this section.

On page 28, before Mitigation Measure 4.10-5, add reference to Mitigation Measures 4.7-3 and 4.10-2a and add these measures to the list of mitigation measures in "Facts in Support of the Findings" at the end of this section.

On page 29, under Impact 4.11-4, replace reference to Figure 3-6 with Figure 3-7. Revise Mitigation Measure 4.11-4 per comments to Condition 8.a.i above.

III. EIR ERRATA.

We respectfully suggest that an Errata to the EIR be prepared addressing the following technical, non-substantive corrections to the EIR as well as any others identified by the EIR consultant or County staff.

In the discussion of Impact 4.2-8 on EIR page 4.2-28, the EIR text should be revised to note that the absence of a construction-related threshold suggests that the air district does not believe that such temporary and relatively minor emissions need be factored into the discussion of global climate change. Further, the EIR should note that when measured against the operational threshold, the Project's construction-related greenhouse gas emissions would be less than significant even assuming they were all to occur in one year or, alternatively, if amortized over 30 years and added to annual operational emissions as is customary in several jurisdictions.

In Table 4.2-10 on EIR page 4.2-30, the total operational emissions of greenhouse gas emissions is listed as 291.98, but the first year operational-related greenhouse emissions is listed as 884.42. The figures should be corrected or a note added to explain the discrepancy.

On EIR page 4.3-27, in the second bullet at the top of the page, the tree replacement ratio is listed as 1:1 instead of 3:1.

In Table 4.5-1 on EIR page 4.5-10, correct references to Urban Land Use policies, which appear to be off by one numeral (e.g., Policy 8.13 should be Policy 8.14, Policy 8.14 should be Policy 8.15, etc.). Please make corresponding changes to the EIR text.

On EIR page 4.6-16, revise the second and third sentences of the third paragraph to reflect that the system not only meets the County's 10-year storm requirement, but is capable of managing a 100-year storm event. Staff can cite to the January 2, 2016 email correspondence from Project engineer Jim Toby to Laurel Nagle et al. in support of this point.

In the discussion of Impact 4.8-1 on EIR pages 4.8-11 to 4.8-13, the EIR should explain the rationale and conservative nature of the significant construction noise impact given that construction activities will be less than 90 dB and prohibited from occurring outside the hours authorized by the County Noise Ordinance.

On EIR pages 6-1 to 6-2, add as project objectives: (1) substantially increase tax revenues to the County and other public agencies and (2) implement substantial and permanent erosion and soil stabilization measures to prevent uncontrolled runoff off-site. Please make corresponding changes to EIR page 3-7.

On EIR page 6-7, revise second line to replace "three" with "four."

In the References section on EIR page 8-6, add references to Lea & Braze reports.

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Thank you for your consideration of our client's views on this matter. Please do not hesitate to contact me with any questions regarding this correspondence.

Very truly yours,

RUTAN & TUCKER, LLP

Matthew D. Francois

cc: Steve Monowitz
Lisa Aozasa
Tim Fox
Dennis Thomas

County of San Mateo - Planning and Building Department

ATTACHMENT K

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LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS | LAND SURVEYORS

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January 11, 2016

San Mateo County Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Attn: James Castaneda, AICP
Subject: **Ascension Heights -** Job No. 2010135 C1

SUPPLEMENTAL PROJECTS LIST

The following are projects within San Mateo County where Lea & Braze Engineering, Inc., has placed similar retention systems on comparably sloped parcels.

Town of Hillsborough

- **New Place Rd** – Moderately sloping site with topography similar to that of Ascension Heights. This site actually has two systems that are closed conduit and the pipes are sitting in the slope. Runoff is metered into a closed pipe system that leads to a through curb drain.
- **Pullman Rd** – Moderately sloping downhill site with closed retention system. This system releases runoff through a metered release onto the hillside below.
- **Glenbrook Rd** – Moderately sloping site with a closed retention system. Runoff is metered into a closed pipe system that leads to a through curb drain.

San Mateo County (unincorporated areas)[1]

- **Emerald Estates Court (near Redwood City)** – New retention system and metering device similar to those proposed for the Ascension Heights project. The retention system is located just above a very steep downslope. Runoff is lead to a closed pipe system that eventually enters the subdivision's overall storm drain system.
- **Winding Way (near San Carlos)** – New closed conduit retention system placed adjacent to a very steep drop off. This system is very similar to what is proposed on the Ascension Heights Project.

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SUPPLEMENTAL PROJECTS LIST - Continued

Town of Woodside

Tripp Rd (#1) – Very steep upsloping site with a history of landslides. We placed copies of the Planning & Building Department files containing the plans and other details of the retention systems installed for these projects are hereby incorporated by reference into the record of proceedings for this matter. Upon request, copies of these documents will be furnished to the County closed conduit retention system in an area of active landslides. This was appropriate since the system was closed conduit and not perforated. Thus, there was no threat of water leaking into the surrounding soils.

- **Tripp Road (#2)** – Moderately steep down-sloping lot. As with the other Tripp Road project, this area is also prone to landslides and we proposed a closed conduit system to comply with the Town's requirement for retention.
- **Stadler Drive** – Moderately steep down-sloping lot. This project also included a closed conduit retention system placed in a moderate slope.
- **Old La Honda** – This large property has many retention systems that allow the runoff to be dispersed throughout the site, but allows the runoff to be released at a predevelopment rate.

Town of Atherton

- **Ridgeview Drive** – Large moderately down-sloping lot with a new retention system. After being retained, runoff is allowed to flow onto the steep hillside below.
- **Belbrook Drive** – Large upsloping lot with a new retention system placed in the moderately sloping hillside. Runoff is allowed to flow to a City storm drain system.
- **Fletcher Drive** – Large moderately upsloping lot with a new retention system. Runoff is released onto the hillside.

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455 County Center, 2nd Floor
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Attn: James Castaneda, AICP
Subject: **Ascension Heights -** Job No. 2010135 C1

Dear James:

As you know, local, state and federal laws mandate that new residential construction in California meet a variety of water related requirements ranging from water conservation to storm water runoff retention systems. San Mateo County requires projects such as this to retain storm water so that no runoff can leave the site at a rate larger than the predevelopment rate. Lea & Braze has designed a system for the Ascension Heights project that will meet the following needs for the 19 homes, the open space preserve, the entire project site, and the surrounding neighborhood. In particular, the project system is designed to:

- Utilize industry proven designs and technology that have been successfully constructed throughout San Mateo County and the State on similarly sloped parcels;
- Accommodate San Mateo County's 10-year storm capacity requirement and also manage a 100-year storm projection with capacity to spare;
- Create a closed system which incorporates 19 individual systems that all feed into a main system, carefully metering water flow into the County's main storm drain system so that runoff will not exceed, but be less than the predevelopment rate;
- Prevent future erosion issues throughout the project site and prevent untreated runoff from flowing onto Parrott Drive parcels, County streets and the nearby watershed.

Lea & Braze has designed and overseen installation and operational maintenance of hundreds of these systems in the Bay Area on slopes similar and even greater than what is proposed for Ascension Heights. Many of our systems have been approved by San Mateo County Public Works Department and a listing of some are attached.

The project includes a proven storm water retention system that our engineers design on a daily basis for almost any project we work on. I assure you that what we are proposing for the Ascension Heights project is very similar to numerous other projects that we have worked on over several years. Those systems have not resulted in any adverse impacts to the project sites or surrounding areas. Please let me know if you need any additional information or technical details.

Very truly yours,

Jim Toby, P.E., P.L.S.
Principal

REGISTERED PROFESSIONAL ENGINEER
JAMES TOBY
No. 63127
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK