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Via E-Mail and U.S. Mail

Ms. Marcia Brown, City Clerk City of Yorba Linda P.O. Box 87014 Yorba Linda, California 92885-8714

Mr. Steven K. Harris, AICP Director of Community Development City of Yorba Linda P.O. Box 87014 Yorba Linda, CA 92885-8714

Re: ESPERANZA HILLS PUBLIC SAFETY MITIGATION MEASURES

Dear Ms. Brown and Mr. Harris

Our law firm represents Protect Our Homes and Hills, an unincorporated citizens group, consisting up of residents of Yorba Linda and the County of Orange. We have prepared for your review and consideration a detailed list of mitigation measures for public safety risks presented by the the project as proposed. The City should condition any approval of the project on all of the following mitigation measures being implemented at the developer's expense.

As time is of the essence, we request that you forward this letter to the Mayor and City Council members so they have it in their meeting packets by Thursday of this week.

#### FIRE MITIGATION MEASURES

- 1) A public loudspeaker system shall be built by Esperanza Hills, Cielo Vista and all other new developments in the area. The new developments shall be required to pay for similar systems in existing neighborhoods that will be impacted by new residents designated to evacuate through existing neighbors streets. A fund, to maintain the system in perpetuity, shall be established by the developer.
- 2) This system shall be connected 24 hours a day to the appropriate fire and sheriff's authorities who can use the system remotely to provide the earliest possible notice of fire threats.
- 3) The sheriff and fire authorities shall have pre-existing maps which provide them with estimates of travel time for fires that could reach the community. These maps shall have calculations from of a representative number of likely points of ignition. These maps shall be updated at least twice a year and shall be posted on agency websites and distributed regularly to all residents in the new developments and the existing developments that will have to carry evacuation traffic. The maps shall be included in information provided to prospective purchasers and to actual purchasers.
- 4) Fire history, threat and evacuation booklets shall be prepared in advance of any sales of houses in the community so that they are available to prospective purchasers and eventual buyers. These shall be prepared at the developer's expense and a fund should be established by the developer to update the booklets on an annual basis. The booklets shall be updated to include information on any recent fires and lessons learned. For example, the recent 300 acre fire by Prado Dam would be a topic candidate for a booklet update.
- 5) The developer shall fund, in perpetuity, a full time staff position for the HOA to routinely inspect homes, yards and fuel break areas for proper maintenance. The staff member/HOA must have clear authority to fine homeowners who do not comply with all recommended fire safety measures such as keeping lawn furniture away from structures and maintaining fuel buffer zones.
- 6) The staff member shall also be required to hold quarterly meetings with homeowners about fire safety and evacuation options and there should be practice evacuations at least once a year. The HOA will likely need to carry additional insurance coverage, to be paid for by the developer, to cover liability risks associated with evacuation practices. There shall be an enforcement budget, funded in advance by the developer, to handle possible legal fights with HOA members who will not cooperate. Fines shall be authorized against parents whose children are ever caught

playing with matches, fireworks, firecrackers or off- road vehicles that could spark and cause a fire.

- 7) Critically, in the event there is no time to evacuate the community, or the evacuation routes are over capacity, there shall be clearly identified and protected safety zones/ structures for residents and possible "hardened structures" that can survive a nearby house catching fire or a wall of flames passing over the structure as well as the associated radiant heat. If, for example, maximum flame heights are capable of reaching 50 to 60 foot heights, than any fire safety zone would need to be 200 to 240 feet from any flammable vegetation. This type of distance will require a redesign of the proposed project footprint. The BOS was concerned about a possible "pinch point" between the northern phase of the development and the southern phase whereby residents in the northern phase could not get out. The safety zones help reduce but not to eliminate completely the risk for residents being trapped in their neighborhoods.
- 8) There shall be at least two safety zones/structures in the northern phase in case residents cannot get out in time. The safety zones shall be supervised and those supervisors shall be able to communicate with one another to, among other things, let people know who has actually made it to the zones.
- 9) The designated safety zones shall be regularly pointed out to all residents. If, for example, a father is trying to rush home from work to help his family evacuate, his level of "determination" and "panic" could be materially reduced if he knew his wife and kids would be heading to the safety zone.
- 10) The future costs of watering the community's common areas, including fuel breaks, shall be carefully estimated and the HOA shall start business with a fund established by the developer that can be used only for fire safety projects. The HOA cannot be allowed to use the funds for non-public safety purposes. It is important that the HOA not be set up to require an endless procession of HOA fee increases to fund fire safety measures. The money should be in place before occupancy.
- 11) Alternative evacuation scenarios shall be specifically addressed in the handbook referenced above but most importantly, if there is to be a successful evacuation of 400 plus new homes and thousands of existing ones, there must a guarantee that qualified first responders will be available in a timely manner to operate effectively at all key intersections and other key points along evacuation routes. Since mutual aid agreements make it impossible to guarantee that any first responders will be available when other fires are raging in the region, the developer shall establish a fund to pay for private contractors who are, for example, former, experienced firefighters and sheriffs who can be under contract to show up in the case of an emergency. Ideally, these would be people who live in the subject neighborhoods and who would not have far to go to get to their designated intersection.

- 12) Comprehensive emergency planning shall also include first aid stations within the above referenced fire safety zones. Private contractors, with appropriate emergency treatment skills and supplies, could also be used for this purpose.
- 13) Portable traffic barriers, cones and other emergency items shall be stored at locations near key intersections. This way, any local immediate responders can set up such barriers without waiting for them to be delivered.
- 14) There must be 24/7 secondary access in and out of the development on roads that are wide enough and flat enough to allow emergency vehicles to access the neighborhoods. Planned evacuation routes cannot take residents in the direction of an on-coming fire, nor can they take residents through high fuel areas.
- 15) All residents in Esperanza Hills, Cielo Vista and other neighborhoods shall be mandated to sign up with all public emergency notice systems at the time of purchase and the HOA staffer's duties should include reaching out periodically to all residents to make sure they are in compliance.
- 16) The developer shall create a FireWatch program through a new Fire Safe Council and the program should be funded in perpetuity by the developer.
- 17) Bonds or other forms of insurance shall be acquired to protect against the possibility of insurance companies dropping home coverages at the wildland-urban interface.
- 18) A bond to cover the cost of restoring the land, in case the developer becomes involvent and cannot complete the project, shall be purchased by the developer.
- 19) The City, the County and OCFA need to be in complete agreement on their interpretation of Appendix "B" of the California Fire Code.
- 20) In the event of an emergency, all electric gates shall be manually shut off and left in the open position for the ingress and egress of residents and of public safety personnel.
- 21) On red flag warning days, the on- site reservoirs shall be filled to a minimum of two thirds capacity to make sure water is available to fight wildfire. (This is particularly important to mandate for the water district because it has its own pressures to not fill the reservoirs too full out of concern that uncirculating water can become "stale" and no longer usable as drinking water.)
- 22) Prospective new residents shall be notified of new water use standards where the per capita goal for 2015 is 159 gallons per day. By 2020, the goal is 141 gallons per day.

## **EARTHQUAKE MITIGATION MEASURES**

- 1) All homes should be sited at least 200 feet from earth quake faults and traces.
- 2) In addition to being designed to handle an 8.0 earthquake, the homes shall have designed to be fall safe. Similar in concept to retrofitting the bathroom of an elderly person, the bathrooms should avoid sink, toilet, tube and shower features that have sharp or narrow edges that could cause series injury. Similar design features should be incorporated into kitchen designs. The "G" forces from the more serious earthquakes will likely knock down any residents standing up in their homes. Homeowners should be required to educate their family members about what cover to take or what handle to grab, depending upon the room they are in, when the earthquake strikes.
- 3) There shall be no fracking allowed under any of the new homes. The process creates independent dangers of leaching gases and water contaminants but also recently has been linked to causing earthquakes.
- 4) The developer shall pay for the costs of an earthquake safety handbook to be made available to prospective purchasers and actual buyers. The booklet shall stress the need to secure all furniture or wall decorations that might fall in case of an earthquake and residents should be asked to certify annually that they have removed fall risks from their environment. Further, the booklet shall educate the residents on after-shocks and the circumstances and time frames where they should not go back to their homes. The fire safety zones discussed above shall be used for residents to evacuate to if they are injured and/or should not be going back into their home. The fire safety booklet shall address how homeowners can be prepared to stay in their back yards over night (and possibly for days) in the event there are ongoing and dangerous aftershocks.
- 5) Since emergency responders are likely to be in very short supply in the event of a major quake, the HOA shall have a detailed plan on how residents will take care of themselves, collectively, in the event evacuation is not an option. Provisions shall be made for first aid stations and reliable communication systems. For example, since cell phones would likely be knocked out by a major quake, the emergency responders within the neighborhood should have hand held radios or equivalents. Plans and supplies shall be in place to support residents for up to two weeks.
- 6) The earthquake safety booklets shall also have a section on what to do if existing oil wells catch on fire or begin leaking otherwise contained gases. It shall address, for example, how much distance the residents should keep from the wells themselves.

#### Landslides

- 1) The developer shall provide to the HOA, at its own cost, sandbags, k-rail and slope failure equipment tools for all on-site geological hazards. In this regard, there are seven land slides on the property. The Draft EIR incorrectly indicates there are only two landslides. It appears that the developer plans to build 125 lots on top of known, ancient landslides.
- 2) The best approach to the landslide threat is to not build directly upon or adjacent to ancient landslides. If for some reason the County or the City feel strongly that the homes can be built at such locations, than a map of all geological hazards—including the landslides—shall be given to prospective and actual buyers.

# Methane and Hydrogen Sulfide Mitigation Measures

- No homes shall be built on top of or near underground methane and hydrogen sulfide reserves. The location of the reserves, which typically co-occur with petroleum deposits, needs to be identified in the environmental documents and appropriate mitigation measures required.
- 2) A serious effort shall be made to identify the location of all previously closed and, in some cases, previously buried closed oil wells. If they were not properly sealed or their seals have been compromised by age, weather and/or frequent earthquakes causing exposure to lateral forces, the well can be leaking both methane and hydrogen sulfide.
- 3) A handbook on the health risks associated with methane and hydrogen sulfide should be prepared at the developer's expense and provided to prospective and actual purchases.
- 4) The HOA staffer in charge of working on fire safety should also address from time to time, as needed, exposure issues for the residents, including arranging periodic inspections of both known active and closed wells to be sure they are properly sealed. In this regard, given the sensitive acoustics in the area, the developer should also be responsible for making sure operating wells on the property be properly maintained not only in terms of preventing chemical leaks but also in minimizing operational noise.
- 5) If any home is to be built within one hundred feet of a known methane or hydrogen sulfide source, it should be required to have state of the art, protective liners underneath the homes as well as venting systems to capture any fumes that appear. There should be specific

estimates given regarding the functional life of the lining and venting systems given to the homeowners. Estimates about repair and replacement costs shall also be given. Homeowners should be advised to have an expert check the liners and venting systems every two to three years to make sure they are functioning correctly. They shall provide documentation to the HOA about completed inspection/preventative maintenance.

6) Homes within 300 feet of active or inactive well sites, shall be equipped with 24/7 methane and hydrogen sulfide monitors in each home. The monitors shall be replaced every five years.

### PROSPECTIVE/ACTUAL PURCHASER DISCLOSURES

- 1) The developer must provide all transaction documents and all disclosures in the prospective buyer's native language with the translations being approved by a certified translator in the subject language.
- 2) Prospective/actual buyers shall be required to sign an acknowledgement of all the public safety risks addressed above: fire, earthquake, landslides, active and closed oil wells, methane and hydrogen sulfide.
- 3) The City shall commit staff time, to be reimbursed by the developer, for review of the scope and detail of disclosure materials to be used by the developer. The disclosure materials shall include a representative sample of where fires are most likely to start and how soon they are likely to reach residents homes. This information is essential to prospective purchasers understanding the type and scope of the risk they are considering undertaking. It is not sufficient to simply explain that the homes are in high fire risk zone.

Thank you for your careful consideration of these mitigation measures. They demonstrate the unusual and nearly unprecedented number of public safety risks to both future and current residents in the area. Adding over 400 more homes to the area compounds and exacerbates the public safety risks for everyone. This is a fact which simply cannot be ignored.

Very Truly Yours, Keyin K. Johnson, APL

Kevin K. Johnson

Cc: Protect Our Homes and Hills