

At Places

Correspondences

9/8/16 CAC Land Use Subcommittee Meeting

## Lee, Elena

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**From:** Chun, Terrence <chun@bessemer.com>  
**Sent:** Tuesday, September 06, 2016 1:30 PM  
**To:** Lee, Elena  
**Subject:** land use meeting/dewatering petition  
**Attachments:** 1144\_001.pdf

Hi Elena,

I am a 13 year Palo Alto resident, address 2171 Byron Street.

I understand there will be a meeting this Thursday for the land use subcommittee where the issue of basements and dewatering will be discussed. I cannot make the meeting to comment in person, so I wanted to relay some thoughts to you.

I have signed the attached petition by concerned citizens to ask the city to examine the issue of dewatering more closely.

I would simply like to make the point to the committee and to everyone relevant in the city that this issue deserves more attention. It is my understanding that up to now the practice has been allowed based upon a study from several years ago. (I do not have the details at my fingertips.) And perhaps a second study done more recently.

Please consider 1) the second study does little more than refer to the first so really all decisions appear to effectively rely on one study, and 2) that first study is not particularly relevant or on point to the actual problem. The issues it tests are not the size, breadth, or situation we actually face.

On the other hand, it defies logic to think that basements and dewatering has no influence on the underground flows, access of tree roots to water, or that the water removed by dewatering should not be used for irrigation during a drought. In addition I think there must be impact on neighboring house settling, but even if not the waste of irrigation water alone makes the practice unwise.

For these reasons I simply ask that the city take another look at the study upon which it relies to make its dewatering policy. If considered examination agrees the study does validly answer the questions posed then I can accept that. I am just afraid that nobody has really compared the study to the issues/questions posed. I am concerned we are making uninformed decisions as I am sure nobody wishes to deny water to our treescape or cause house settling, it must be the case that planners genuinely believe there is no impact on these things from dewatering.

However, given the importance of the issue shouldn't the city be (more) sure about its data and assumptions?

There will be much noise around this issue on both sides, including some demands too difficult or expensive to implement. But please cut through and ignore all such noise and consider my reasonable request (which requires no funds) to simply first just look at the data/the study you already have in hand to verify that it is in fact relevant and on point.

There is a very large assumption that its conclusions show dewatering is not a problem, and policy has followed, but I am writing to suggest that is incorrect and that the study does not purport to look at the questions at hand.

Thank you for relaying this to the subcommittee. I think this is an easy and reasonable step to show protesters you are flexible and to actually get some answers.

Thank you,  
Terrence Chun

**Terrence Chun**  
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Senior Client Advisor

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**To: City Council of Palo Alto**  
**From: Residents of Palo Alto**

The current practice of permitting dewatering (the construction practice of pumping out ground water and pouring into our storm drains) is simply wasteful of an increasingly scarce resource. We request that the City

- Mandate better practices for underground construction. For example, use of cut-off walls, where groundwater is a problem.
- Require that all pumped out groundwater be beneficially used or locally recharged to the aquifer.

These are some measures that can protect our groundwater and reduce impacts to our natural and built environment.

Additionally, with climate change and sea level rise, groundwater levels are expected to rise also. Some best practices to minimize flooding in areas with a high water table include:

- Prohibit underground construction in those areas in which the groundwater level is expected to surface during or after a 20-year storm by the year 2066,
- Ensure that underground construction does not adversely affect raised groundwater levels during heavy storms.

We hereby request the City of Palo Alto to require construction practices that protect and make wise use of our groundwater and implement land use policies that account for climate change and the importance of our soils for stormwater management.

**Signature pages are attached.**

Returning petitions:

- a) Mail or deliver to 2225 Webster St., Palo Alto
- b) Sign, scan and e-mail to [info@savepaloaltosgroundwater.org](mailto:info@savepaloaltosgroundwater.org)
- c) Sign online

<https://www.change.org/p/palo-alto-city-council-mandate-best-practices-for-underground-construction>

We hereby request the City of Palo Alto require construction practices that protect and make wise use of our groundwater and implement land use policies that account for climate change and the importance of our soils for stormwater management.

Questions: [info@savepaloaltosgroundwater.org](mailto:info@savepaloaltosgroundwater.org)

SIGNATURE:	PRINTED NAME:	ADDRESS:	E-MAIL
	Terrence Chun	217 Byron St.	TC1LP@stcslobal.net

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**Comments to the Comprehensive Plan Citizen's Advisory Committee Land Use Sub-Committee  
Regarding Basements  
Save Palo Alto's Groundwater**

Keith Bennett  
September 7, 2016

Unfortunately, I am unable to attend the sub-committee meeting.

Save Palo Alto's Groundwater has concerns regarding the impacts of basements /underground construction on groundwater, both during and after construction.

We concur that basements and underground construction, **properly located, sized and constructed**, can provide benefits; however, the Comprehensive Plan must explicitly and concretely address the additional risks and negative aspects of underground construction. Critically, the **importance of our soils and aquifers for stormwater management and the effects of sea level (and groundwater rise) on the stormwater handling capabilities of our soils is generally not recognized**.

We are only concerned with the interactions of underground construction and groundwater; we do not have a position on underground construction that does not interact with groundwater, which is a significant consideration only in certain areas of the City.

Specifically:

We suggest the following modifications to the plan:

**Program L-3.9.1**

- Change to ".....have negatively affected properties, both adjacent and further away."
- Remove the words "or require mitigation of them."
- Recognize that the impacts and risks of basements depend upon **location and basement size (volume)**, and develop "**location-appropriate**" regulations explicitly considering groundwater impacts and hazards.
- Recognize that the impacts and risks of underground construction must be considered in the **context for climate change adaption**, as climate change will strongly impact drought risk on the one hand and flood risks on the other hand.

**Program L-3.9.2**

We support prescriptive measures that dramatically reduce the need to utilize the storm drains. To ensure that effective measures are adopted, require local (including on-site) aquifer recharge and beneficial re-use. Assess a significant fee for all water not locally recharged.

**New Program 1 – Hazard mitigation considering climate change adaption**

Recognize the increased risk of flooding due to sea level rise (project to be approximately 3 feet within 50 years) and the associated rise of groundwater levels will increase the risks of soil saturation to the surface in heavy storms in large areas of Palo Alto, and increased flood risk. To reduce local hazards, restrict basement construction to areas of Palo Alto with low risk of flooding considering sea level rise,

groundwater inundation, and outside of areas where groundwater saturation during heavy storms is a risk. Basements should be permitted only in those areas where the groundwater level is currently at least 10 feet below ground surface and 12 feet below grade for habitable basements.

### **New Program 2 – Protection of soil and aquifer stormwater management capacities**

Recognize that basements reduce the stormwater management capacities of the soils and aquifer in two ways: i) reduced volume of soils above saturated soils available to absorb water, and ii) blocking of flows, and thereby increasing the water table gradient required to achieve the same flow rate. These effects are cumulative, so although the impacts of a single basement may not be large, collectively, the impact is potentially very significant, not only for nearby properties, but for properties distant from the disturbed area. Require design and construction, including basement setbacks, soils engineering, and on-site storage that mitigate these issues.

Background information for our recommendations follow.

1. **Recognize that the negative impacts and risks of basements depend upon location and basement size (volume), and develop “location-appropriate” regulations.**

For example, the impacts of a 12’ depth basement in College Terrace which is unlikely to extend into the water table are far different than the impacts of a basement in Leland Manor near the boundary of the current FEMA floodzone, where the basement extends deeply into the water table year around and where flood risks are much higher. The flood risks in lower-lying areas will increase with climate change.

2. **Recognize that climate-change and sea level rise will increase groundwater levels; “location-appropriate” regulations should be based upon impacts and risks expected by 2065.**

a. **Flood risks / aquifer capacity**

**Our soils and aquifer are the major systems for handling stormwater.**

When groundwater becomes saturated to the surface, all precipitation must flow above the surface – there is nowhere else for the water to go. **A ½” per hour rainfall (typical of a heavy rain) over Palo Alto “east” of Foothill Expressway is about 3,900 cubic feet per second of water. If this water were flowing on the surface, it would be equivalent to a 2” deep water flow across Middlefield Rd. from the border of Menlo Park to Mountain View at a speed of 1 foot /second (about ¾ of a mile per hour).** This flow rate is more than ½ the highest recorded flow of San Francisquito Creek (7,000 cubic feet per second) – in other words, the effect is the same as if ½ of San Francisquito Creek at maximum flow flooded onto our streets. It is clear that our storm drains cannot handle such flows, and that water would accumulate in lower areas, resulting in major flooding.

To better put the total amount of water in perspective, the total rainfall of a heavy 3-day storm, such as that in 1982, is about 4 inches. Therefore, soil storage, groundwater flow and storm drains within Palo Alto must handle nearly 1 billion gallons (2,500 acre-feet) of water during the storm.

In 1998, the groundwater level rose to within 4' of ground surface (street crown) on Webster St. between Santa Rita and Oregon Expressway, resulting in flooded utility basements for residences in that area. Groundwater levels are known from depth of water in the basements. In addition, Palo Alto had flooding in lower lying areas; in addition to deep flooding the flood record map shows ponding on Garland, which is not directly due to overflow from San Francisquito Creek. It is quite possible that the storm drains could not keep up with the flow as the soils had become locally saturated. In lower lying areas of Palo Alto it is almost certain that groundwater saturation added to the impacts of San Francisquito Creek overflow.

The geotechnical report for the new construction of 736 Garland indicates that winter groundwater levels are normally about 6.5 feet below ground surface (the site elevation is 16 feet), and are 2 – 3 feet lower in autumn. The groundwater level map prepared by Bob Wenzlau shows an estimated groundwater level of ~10 feet below ground surface at that location.

([http://savepaloaltosgroundwater.org/files/PaloAlto\\_ShallowGroundwater\\_Update\\_wPIumes\\_V3\\_red.pdf](http://savepaloaltosgroundwater.org/files/PaloAlto_ShallowGroundwater_Update_wPIumes_V3_red.pdf) )

**The geotechnical report also notes that during heavy storms the groundwater level today raises to 3.5 feet below ground surface.**

**b. Flood risks / climate change adaptation / reduced aquifer capacity due to rising sea levels**

**Sea level rise will reduce the capacity of our soils to handle stormwater.**

If San Francisco Bay rises (current ABAG projections are approximately 3' rise), the groundwater level will rise by approximately the same amount to maintain the same flow, and areas where the winter groundwater level now is 3 feet or less below ground surface will saturate to the surface; the soils will no longer be able to absorb precipitation, resulting in surface flooding.

Considering sea level rise, underground construction should generally be prohibited where the groundwater level is less than 10' feet below ground surface; Considering a modest "safety margin", 'habitable' construction should be limited to sites where the groundwater level is less than 12' below ground surface as doing so a public safety hazard.

**c. Maximize capacity of soils and aquifer to handle stormwaters.**

Underground construction negatively impacts the ability of soils to handle stormwaters through two effects: i) Soil removed by the basement is no longer available to absorb waters, and ii) basements block stormwater flows. These impacts depend upon the depth, area and density of water-blocking underground construction.

For basements extending into the water table, the water absorption capability is reduced by the fraction of the area of the lot covered by impervious underground construction. If the basement (including light wells, patios, etc.) covers 40% of the lot, then the water absorption capacity of that lot is reduced by 40%. This effect is cumulative – as more lots are covered by basement construction, the water absorption capacity is reduced over large areas.

Basements reduce the average permeability of the soil, thereby requiring a steeper gradient of the water table to achieve the same flow rate. For example, in 1998, the water gradient from Webster St. near Oregon Expressway to the Baylands (highway 101) was approximately 14' over a distance of 1.1 miles, or approximately 12 – 13 feet per mile. A simple estimate of the effect of “single-story” basements based upon the depth of the aquifer, using a typical impervious depth of 12' and lot coverage of 40% indicates that underground construction, if built as permitted by current zoning, would increase the slope of the groundwater by 20 – 25%. This would increase the groundwater level by 14 feet x 20% = 2.8 feet at Webster St, and more than 2 feet at Jordan Junior High. Combined with sea level rise of 3', storms such as those experienced in 1982 and 1998 would almost certainly result in groundwater saturation to the surface, and flooding.

### 3. End the practice of underground construction dewatering

The current practice of dewatering for underground construction in areas of high groundwater is wasteful of a valuable resource; a resource that will become even more valuable as water becomes scarcer. Furthermore, such dewatering is simply unnecessary for underground construction.

We have documented a large number of other negative impacts of dewatering. For example, measured data shows that the water-table is significantly (2 – 6 feet) lowered on others' properties, not only adjacent properties, but properties over 200 feet away from a *single* dewatering operation. Lowering groundwater levels by this amount can surely introduce ground settling and subsidence, reduce soil moisture for trees and plants. Collectively, dewatering reduces subsoil water flows to the Bay, increasing the risks of saltwater intrusion (which has occurred previously in Palo Alto).

There are well-established, mature methods for basement construction, such as cut-off walls and sheet piles, which have previously been used in Palo Alto, and are routinely used in other areas.

- a) Prescribe construction practices, such as cut-off walls or sheet piles, that greatly reduce the volume of water to be pumped (Program L-3.9.2),
- b) Prohibit discharge into the storm drains by requiring either local percolation and / or beneficial use of such water.
- c) Charge a significant fee for any and all water pumped.

From: Arthur Keller  
To: CAC Land Use Subcommittee  
Re: Stanford Research Park  
Date: September 7, 2016

The City of Palo Alto exempted the Stanford Research Park from the annual growth limits on office space because of Stanford's independent efforts at establishing a Transportation Management Association. I discussed at the last meeting of the CAC that this relationship needs to be formalized with measurable reductions in traffic. I believe it is insufficient to have a, say, 30% decrease in single occupancy vehicles if employment also increases by 30%. In that case, we are back where we started without an appreciable decrease in traffic. Furthermore, I believe that trip caps will be hard to establish considering that there are multiple employers and, unlike Stanford University, there is no clear perimeter to the Stanford Research Park that can be measured. I believe an agreement should be made between Stanford as land owner and the City of Palo Alto regarding binding targets for reducing the impacts in exchange for exemption from annual growth limits. Rather than prescribing particular measures, Stanford should implement whatever it takes to achieve the targets. Here is my draft language for consideration.

**Policy.** The Stanford Research Park will be exempted from annual growth limits in exchange for achieving binding targets for reductions in traffic at key intersections, as well as required mitigating other impacts of employment and office growth.

**Program.** The City and Stanford University shall enter into an agreement setting the binding targets for reductions in traffic and specifying the required mitigations of other impacts, and the time frames for achieving these targets and mitigations and for measuring and maintaining them, the nature of how Stanford University is exempted from annual growth limits, and the penalties of not achieving the targets and mitigations. Nexus fees charged shall be the latest fees that apply to new development. Employers within the Stanford Research Park may be given reductions in transportation impact fees to the extent they participate in and contribute to the efforts to achieve the targets and mitigations and to the extent that targets and mitigations are met.

09/08/16

CAC Land Use Element

Subcommittee Meeting September 8, 2016

From: resident Betty Jo Chang

Referencing: Land Use and Community Design Element Subcommittee Discussion Elena Lee, Interim Planning Manager, Planning & Community Environment Department

My concern is about basements. I understand that this devilish issue tunnels through not only Land Use and Community Design elements, but also Housing, Natural and Urban Environment, Natural Hazards, Community Safety and Emergency Management, and Sustainability Elements. Decisions regarding subterranean construction are also impacted by Climate change planning – both drought and flooding, both local and regional policy and plans.

Please be so kind as to share with other CAC subcommittees, concerns raised by residents in this forum that you feel may be more appropriately the prevue of other Comprehensive Plan elements. For it's not clear where all the different planning issues around basement construction should best be addressed. I thank you in advance for bringing them to the attention of the other relevant subcommittees.

You will find in this handout, specific comments on the current Land Use element draft. I wish to bring a few of those observations to your attention.

I want the City to stop permitting basement Bedrooms and Baths in areas where the Water table is 0 – 10 feet, and where these new housing units are at risk for flooding from both near term sea level rise, and more frequent sheet flooding from ground saturation storms until such time as appropriate flood hazard regulations for such habitable basements are applied.

This is a housing issue. The housing stock we construct today will be with us for the next 50 years. The very large single family residences constructed today, may well serve many different purposes during their practical lifetime.

I support the Save Palo Alto's Groundwater's requests for mandating better practices for underground construction in areas with high water tables, and mandated beneficially used or locally recharged water discharge during construction.

I support their recommendation that underground construction be prohibited where groundwater is expected to surface after a 100 year (1% chance storm) by 2066. I support the City and MRP's Green Storm Water Initiative objectives. I concur with the Sustainability and Climate Action Plan (S/CAP)'s conclusion that "Sea-level rise is expected to affect low-lying areas of Palo Alto surrounding the San Francisco Bay with more frequent and severe flooding."

<http://www.cityofpaloalto.org/civicax/filebank/documents/51856>).

Despite the 14 Storm water management projects which the upcoming Ballot measure seeks to fund for improvements needed to enable the system to convey the runoff from a 10-year storm without street flooding, AND, Master Plan Update projects identified to address areas CURRENTLY subject to street flooding depths over 6 inches over an extended period of time, yet basement construction is still being approved without reference to high water table and flood risks.

With respect to Page 6: BASEMENTS, here are my concerns about the August 23 proposed changes to this Land Use Element.

Attachment : CAC comments – Draft Basement Policy and Program

~~**Policy L-3.8** Ensure that new basements do not negatively affect adjacent homes or the existing tree canopy. [NEW POLICY] [L53]~~

**New 8/23 proposed wording: “Recognize that residential and commercial basements have both positive and negative impacts on our community and environment and that both need to be better understood and articulated. [L-3.8, revised]”**

➔ This new proposed wording eliminates protection from tree canopy damage by basement construction. This protection was, importantly, in the previous draft. If specific implementation tools to address residential basement impact to the tree canopy are best incorporated in the Natural and Urban Environment element instead, then a specific reference to that disposition should be included in this Land Use element. Note that shallow aquifer draining may impact both canopy and soil structure farther away than just adjacent properties.

The Urban Forest Master Plan 2015 presents the contribution of existing trees to storm water management. It is a critical part of the City’s Green storm water infrastructure plan. The Palo Alto i-Tree streets analysis indicates that, annually, the street trees intercept 42,600,000 gallons of storm water—1,462 gallons per tree. (pg 42) . Further, this study reports that 69% of their community survey respondents identify Urban Development/Redevelopment (69.4%) as the most serious threat to our Urban Forest / Tree canopy. It is clearly an area of strong community concern.

Since basement constructions already negatively affect adjacent homes and storm water management capacity, it is critical that their construction does not also further damage the tree canopy (our other water capacity management helper). The work product in the Urban Forest Master Plan is sufficient indication of the both the importance of this issue and the views of residents. There are no positive impacts of basement construction on Tree canopy. None.

~~**Program L3.8.1** Evaluate the City’s policy of excluding basements from the gross floor area and maximum floor area ratio limits in the zoning ordinance and consider zoning revisions to limit basement size and increase basement setbacks from adjacent properties. [NEW PROGRAM] [L54]~~

➔ A) Basement Exclusion: The City’s current exclusion of basements from gross floor and max floor area ratios is not and ought not be considered a sacred cow. For I am but one of many residents who view the perceived gain from increased property taxes on yet even larger single family residences (that the FAR exclusion encourages), do not balance the costs to our community of basement construction in high water areas (from groundwater loss, and tree canopy damage, nor the increased operational expenses of storm water management, nor the health, safety and property loss concerns associated with subterranean bedroom / bath construction in areas with high water tables, and in the face of certain sea level rise and extreme storm events we may expect from global warming.

The “typical” Single family residential property (as defined for ERU billing unit calculations for Storm Drainage Fees) is 2500 sq. ft. New basement plans exceed (all by themselves!) this “typical” metric (as well as the average Single family residence sq. footage sizes reported by US Census for 2013). But this increased SFR house size does nothing to address the anxious and urgent housing demands for more (and more moderate) accessible housing options for families, seniors, and professionals. It further incentivizes construction that is less not more resilient to flood damage from climate change events. Finally, over the 50 year expected life of single family residence, owners and needs will change. Large homes will be re-purposed. (Many a noble house has become a residential care facility for example). But basement bedrooms and baths in flood risk areas are not amenable to repurposing into accessible and safe housing for singles or seniors. Off book uninspected construction of kitchen facilities in basements to create black market multi-family housing are more, not less dangerous than the same illegal conversions performed above ground. These are real costs to the city of unregulated basement construction - construction incentivized by current basement exclusion. A program - cost / benefit analysis of this FAR policy should be returned to this draft.

New 8/23 proposed wording: “Program L-3.8.1. “Reach out to homeowners, neighborhood groups, commercial property owners, professional and other stake holder groups to discuss the positive and negative values and uses of basements in our community. Consider the relationship of basements to adjacent properties and setbacks, nearby trees, the water table depth particularly near flood zones, hazardous materials, and nearby wells, both during and after construction. Update the zoning ordinance as needed to incorporate the learnings of this outreach. [L-3.8.1, revised]”

➔ Every day we dither, more basements are constructed in high water flood prone areas that we as a community, will have to deal with for the next half century.

➔ re: “Reach out to homeowners...” Palo Alto residency is defined by living in Palo Alto, not by a name on deed or mortgage. Renter’s represent 44% of city residents. The focus in this proposed wording on Property owners rather than Residents may simply be an oversight. Or it may reflect an unconscious bias with respect to the “Basement problem” that pre-supposes it be solely an issue of property rights. This despite legitimate concerns raised by Residents (homeowners and renters alike) who see unregulated basement construction impacting community resources; including groundwater, storm water soil capacity, canopy degradation, emergency services, and safe accessible housing resources upon which we all depend. We’d best hope that all residents - owners and renters alike, are invested in this community and hold a stake in it’s future. Dismissing concerns of 44% of our population is a really bad plan for a city so dependent on citizen participation.

➔ With respect to understanding and mitigating issues associated with residential basement construction in high depth to first water areas, location-appropriate regulation is required. Specific actions that may progress this requirement include:

1. Request a staff report as follows:

- Analyze all geotechnical reports and groundwater use plans now required for dewatering permit (which must include highest anticipated groundwater) for permits since 2015.
- Collect and review metered dewatering discharge for all dewatering locations from June 2016 forward.
- Compile and report results of the Public Works mandate that: *“The contractor shall determine the depth to groundwater immediately prior to excavation by using a piezometer or by drilling an exploratory hole if the deepest*

*excavation will be within 3 feet of the highest anticipated groundwater level.”*

- Correlate Sea Level Rise projections, Depth to First water maps, FEMA repetitive flood claim Palo Alto property locations, emergency services flood event debriefs for previous floods, Storm Water Management Ballot measure and Master Plan list of priority project areas currently at risk for flooding, and new basement construction planning permit requests.
- Correlate tree canopy condition reports within 500 feet of any basement construction since 2014.
- Review permitted and planned basement constructions with below grade bedrooms and basements. Evaluate impact of potential occupancy rates compared with those currently projected in Housing plan for SFR zoning, and ERU storm-water and wastewater fees calculations.
- Evaluate the impact of basements and basement construction with respect to: setbacks, nearby trees, the water table depth particularly near flood zones, shallow aquifer ground water depletion, soil compaction, hazardous materials, and nearby wells, both during and after construction. Make specific recommendations regarding zoning amendments to avoid these impacts..
- Assess the potential impact on emergency services and public works of inhabited basement bedrooms and basement waste water sources in high water table areas and with reference to current projected sea level rise. Make specific recommendations to mitigate risks to life and property.
- Evaluate City / Community benefits and costs associated with the exclusion of basements from gross floor and max floor area ratios. Recommend and justify action to retain as is or change.
- Summarize findings incorporating where appropriate, linkages to relevant portions of existing programs and plans (such as: Urban Forest Master Plan, Storm Water Master Plan, Housing Plan, Storm Drain Blue Ribbon Committee findings, Climate Change and Local Hazard Mitigation working groups, Natural Resources and Safety components of Comprehensive plan, City Sustainability and Climate Action plan, Santa Clara County Hazard Mitigation Plan).

New proposed **Program L-3.9.2.** Develop prescriptive subsurface construction strategies that dramatically reduce or avoid the need to utilize the City’s Storm Water system. To make these strategies more advantageous to the property owner, consider making the City fees to utilize these strategies less expensive and approvals more streamlined than current requirements. Update the zoning ordinance to incorporate the learnings of these programs. [New Program]

➔ A new program of prescriptive subsurface construction strategies would, initially, require more not less staff time. It is not clear that current fees cover existing costs. Whether or not approvals ought eventually be streamlined should depend on the successful roll out and evaluation of the resulting product. Streamlined approvals are not desirable in advance of experience, and prescriptive zoning must include adequate inspection processes to insure construction consistent with strategies.

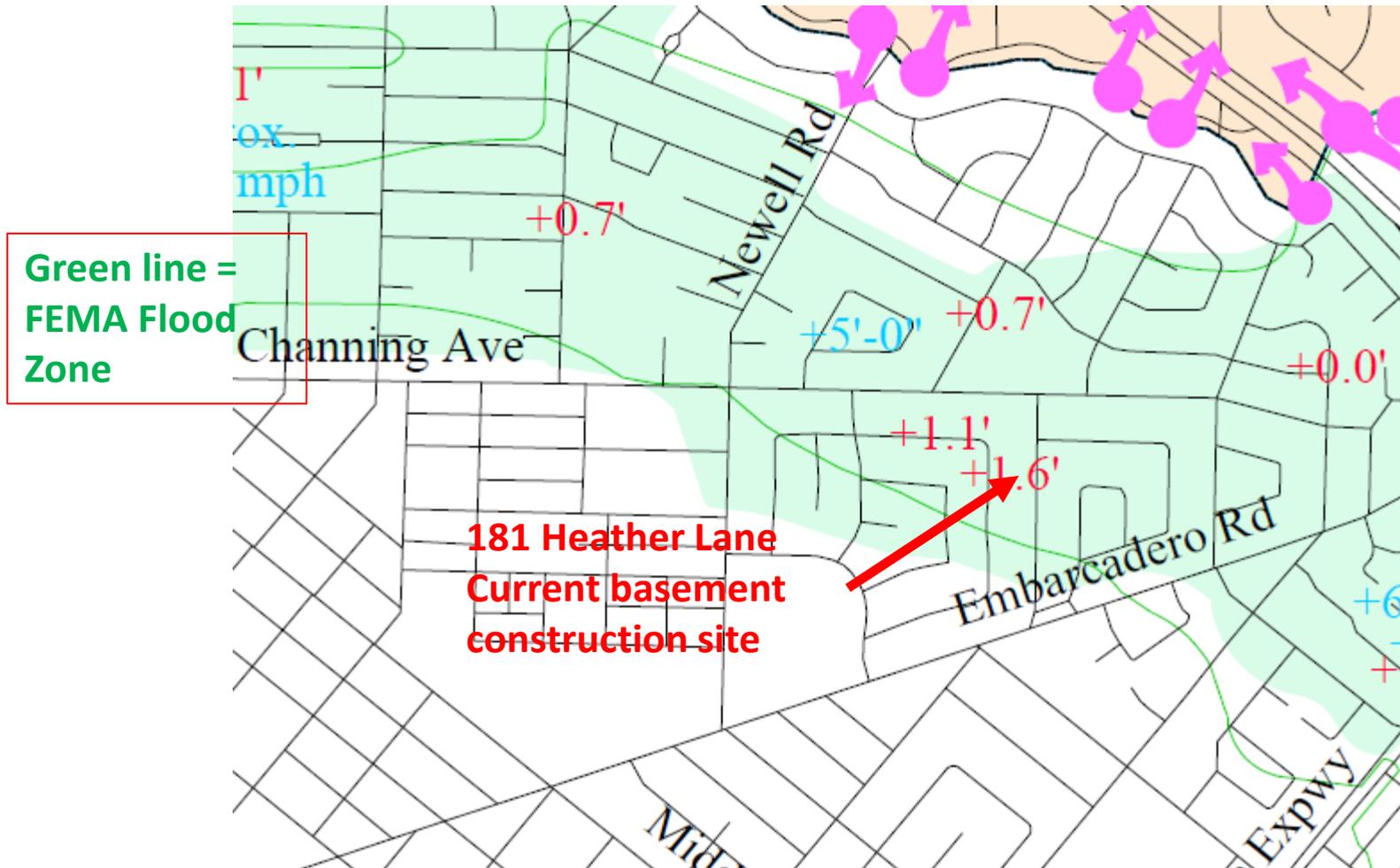
Thank you for your service and your time.

Betty Jo Chang

# Basements Being Built in Flood Zones

Keith Bennett

# Basements being constructed in areas with Flood History



1998 City Flood Map

**From:** Rene Wood [mailto:renecwood@aol.com]  
**Sent:** Thursday, September 08, 2016 7:33 AM  
**To:** Lee, Elena  
**Subject:** Re: Land Use

Hello Elena - please accept my comments on the draft CAC Land Use & Community Design Element and appreciate your sharing them with all members of the CAC Land Use subcommittee.

I apologize in advance if some of my comments are already incorporated in ordinances, policies, etc. I do plan to be at your meeting on 9/20.

Sincerely,  
Rita Vrhel  
[ritavrhel@sbcglobal.net](mailto:ritavrhel@sbcglobal.net)

Rene Wood  
[renecwood@aol.com](mailto:renecwood@aol.com)

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**General Comments** - a very impressive document covering a lot of territory.

- To encourage the type of community Palo Alto seeks to be, every section should encourage/incorporate the complete street concept. The complete street concept should include provisions for the increasing use of scooters as well as other mobility devices used by members of our community. Also, restaurant outdoor dining areas are increasingly encroaching on pedestrian walkways, particularly on University & California Avenues. If this trend continues, sidewalks will need to be wider to accommodate both uses.

- The specific boundaries of all Transit Corridors need to be defined.

- The use of permeable surfaces, such as permeable concrete and blacktop, need to be required, as the use of such surfaces will reduce runoff and storm drain usage while increasing percolation into the aquifer.

- For parking in particular:

1) striping all streets to indicate parking spaces will maximize the number of available parking spaces, particularly in residential areas.

2) consider the after hour use of public parking areas, such as the parking lot under City Hall, for residential parking permits in a manner which would not impact downtown restaurants & businesses.

3) address the impact of Airbnb rentals on residential parking. The impacts of Airbnb rentals, both in the removal of rental units from the housing market and parking impacts, do not appear to be addressed in this document. Policies concerning Airbnb rentals are best developed now to address the potential likelihood new housing units could be turned into Airbnb rentals. Also, housing units built under Policy L-3.4 should be strictly prohibited from such usage.

**Specific comments:**

**Affordable Housing:**

Parking is not mentioned in this section and needs to be as housing units of any type require parking. New housing developments must provide parking underground or on the premises. In fill housing and converting/preserving cottages will result in additional parking needs unless parking is already available on the property.

**L - 3.3** must document where new housing unit tenants will park. Such units must not impact the parking of current residents. Palo Alto already has a severe parking shortage requiring residential parking

permits/programs.

**L - 3.4:** would change this to **EXPLORE** not support. It's hard to support policies without knowing their full impacts and costs. Recommend citing workforce housing with a preference, as legal, to municipal employees and school district employees.

**L - 6.9:** needs to clearly stated that an increase to a maximum of 65 feet **includes all** the roof mechanics - not that these are then added to the 65 feet.

**L - 6.9.1:** The meaning of compatibility needs to be better defined to include parameters/criteria so the decision making doesn't become a personal preference of those making the decision. The specific areas under consideration for these increased heights need to be defined by street boundaries.

**L - 6.10.** Policy does not include an upper limit on heights. Need to be consistent with L6.9 and state maximum height includes all roof mechanics etc. Why does this policy not include workforce housing as discussed in L-3.4? Same comments about specific criteria detailed above apply here.

For all of the above policies, all traffic mitigation/avoidance plans must be tracked and reported to a specific city agency, such as the planning department, with public access availability, on a six-month basis for 2 years and thereafter on annual basis. Such reports will be incorporated into all traffic planning and mitigation process. Traffic congestion is cumulative; we do not know the effects of projects under construction or just authorized. Would advise a 'wait and see' period before additional construction is approved.

### **Urban Forest:**

- Include a statement recognizing that our urban forest is in crisis. Canopy's annual report will likely document an increase in distressed and dead trees. Planning for future trees must not become more important than caring for our current canopy.

- The City can make available to the public measures which will help preserve our canopy. These can including an increased emphasis on public education, greater compost availability in neighborhood locations, specific tree care instructions. Specific information regarding effective tree watering is required especially if a resident lets their lawn die or installs xeroscape landscaping. This information can be included in the utilities flyer, posters or educational classes. Streamlining the process for homeowners to trim public trees at their own costs would also help.

- Consider instituting a public/private partnership to sponsor new trees, provide for the care / trimming of existing trees and weeding around the trees.

- All trees planted either on city or private property should conform to Canopy's list of recommended trees.

- Landscaping, both private and public, should conform to City landscaping goals. To improve compliance, landscape plans should be reviewed and approved by the city and become part of the building plans monitored and enforced by the Building Inspector. When landscaping and/or irrigation systems are installed, building inspection personnel shall inspect such systems and require take correction if water is being wasted.

- Review city sidewalk maintenance procedures and utilize cement grinding and/ or use of asphalt fill to level sidewalks rather than complete sidewalk removal to minimize removal and vertical cutting of tree roots, which can severely stress and negatively impact the tree.

- Arborist selection does not need to be governed by the lowest bidder process as Palo Alto is a charter city. Avoid future debacles as occurred at Eleanor Pardee Park and the eucalyptus trees.

- City tree trimming practices need to be reviewed to encourage canopy development.

- All policies dealing with new tree and landscaping plantings should stress low-water varieties.

**Policy L - 3.8:** change to read: "Ensure that new basement construction does not negatively affect

community groundwater, adjacent homes or the tree canopy. This can be accomplished through the development of policies which include basement square footage in the FAR; limit dewatering by requiring 100% use, re-injection or recycling of all extracted groundwater; charge SCVWD's market rate for all extracted groundwater; assess storm drain usage fees; require use of alternative construction methods which minimize groundwater extraction; and classify any basement area as a single residential story subject to the independent review process and City Council review.

**Program L.3.8.1. Rewrite to reflect Policy L-3.8.**

**Policy L - 5.2:** Does this apply city wide? If not, it should.

**Coordinated Area Plans:**

**Program L4.2.2:** Please consider eliminating the word Consider and have it read "Prepare a coordinated area plan....."

**Basements:**

I strongly support the inclusion of basement construction, whether it includes dewatering or not, as a specific topic in the CAC plan as it applies to the topics of land use, public works, emergency services, housing (possible Airbnb or rental usage), zoning, and natural resources, such as soil and aquifers. Basement construction has the potential to impact nearby resident's homes as well as the canopy. I have repeated Policy L-3.8 and Program L.3.8.1 in this section.

**Policy L - 3.8:** change to read: "Ensure that new basement construction does not negatively affect community groundwater, adjacent homes or the tree canopy through the development of policies which include basement square footage in the FAR; limit dewatering by requiring 100% use, re-injection or recycling of all extracted groundwater; charge SCVWD's market rate for all extracted groundwater; assess storm drain usage fees; require use of alternative construction methods which minimize groundwater extraction; and classify any basement area as a single residential story subject to the independent review process and City Council review.

Program L.3.8.1. Rewrite to reflect Policy L-3.8.

**Additional Outstanding Land use Element Issues:**

Under 1., change to read: "affordable and workforce housing".