

June 4, 2014

Planning and Zoning Commissioners
Planning and Zoning Commission of Flagstaff
211 West Aspen Ave.
Flagstaff, AZ 86001

Dear Planning and Zoning Commissioners,

Thank you for considering this letter as part of the report packet for the request of a re-zoning by Landmark Properties. Within this letter are the results of a rapid Health Impact Assessment that was conducted for the proposed Standard development, assuming the re-zoning change is approved. Health Impact Assessment (HIA) is a tool that is commonly used in the United States, including Arizona, to systematically assess the effects of proposed policies, programs or projects on the health of affected communities.¹ The goal of any HIA is to bring to the attention of decision-makers both the potential positive and negative health effects and to put forward recommendations that aim to mitigate health harms and enhance health benefits for the communities being impacted. By considering health in the decision-making process, alongside economic, technical and environmental considerations, HIA helps to make decisions more sustainable and cost-effective.

While there are other student housing projects in the works in Flagstaff, we feel that The Standard required particular attention as it is currently the only development proposed for off-campus student housing that will displace residents, reduce the affordable housing stock in Flagstaff, and affect the historic and cultural character of one of the oldest communities in town. As such, it has the potential to have substantial health effects on residents of La Plaza Vieja and the wider community. This letter brings to your attention the potential unintended health consequences of this development and proposes recommendations that aim to enhance potential health benefits and mitigate health harms.

The growth and development that is currently happening in Flagstaff presents a critical opportunity to address disparities in health within our population. This particular HIA focuses on the re-zoning request currently under consideration that would allow Landmark Properties to build the 650 resident student housing complex in the historic community of La Plaza Vieja. As Northern Arizona University, a key economic and community partner in Flagstaff, continues to expand its student population and the population of Flagstaff continues to grow, similar effects, as outlined in this letter, may be associated with future proposed housing developments. The conclusions and recommendations of this HIA should therefore be taken not only as relevant for the current development, but as potentially applicable for other future housing development projects.

The next four pages summarize the Health Impact Assessment and the recommendations that we would like the Planning and Zoning Commission to consider as they review the request for re-zoning. Following this summary is a more detailed assessment of health effects that informed the summary.

It is evident that the Planning and Zoning Commission and the City Council support the preservation of health of the current residents of Flagstaff, as demonstrated in the newly adopted Regional Plan. We look forward to working with you on this project and future development projects proposed for Flagstaff to ensure that health and longevity of our residents is protected.

Sincerely,

La Plaza Vieja Community Association
Residents of Arrowhead Village
Ame-Lia Tamburrini, HIA Consultant
Hermosa Vida Community Organizers, North Country HealthCare

The Standard HIA Snapshot* (4 pages)

What is an HIA? Health Impact Assessment is systematic process that determines positive and negative effects of proposed projects, policies or programs allowing decision-makers to understand and consider unintended health effects alongside environmental, economic, and technical components.

How is Health affected? Our health is affected by our environments- where we eat, live, and play. Changes in our environments can have substantial effects on Health, both for the better and the worse.

Why do *this* HIA? The Standard hinges on a re-zoning, which is a discretionary community right, therefore we want to ensure our decision-makers are aware of all the potential effects of this project on the community, so they can make decisions that are sustainable and that align with the community's vision. Our objective is to offer recommendations for The Standard that maximize positive health effects and limit negative impacts.

What did this HIA find? This HIA looked at health effects of Displacement and Neighborhood Preservation, two major pathways of importance to the residents of La Plaza Vieja, that have known health consequences. Below is a summary of our results:

Arrowhead Village residents expressed concerns about how potential **Displacement** would impact their health, specifically:

- **Economic Impacts**- lack of affordable housing, increased distance to work, job loss, childcare
- **Access to Services**- increased distance to key resources
- **Social Cohesion**- loss of community and family support structure
- **Stress and Anxiety**- and other immediate physical health effects
- **Maternal and Child health** – fragmentation from peers, supervisors and educators, marginalization

La Plaza Vieja residents expressed concerns about how potential changes to **Neighborhood Preservation** would impact their health, specifically:

- **Traffic safety** - safety and mobility pedestrians, especially children and those with mobility challenges
- **Compact student living**- crime, disorderly conduct, assaults
- **Neighborhood Character**- loss of historical and cultural identity and resulting changes in quality of life and possible displacement.

*This page is to serve as a quick summary of our findings, with recommendations for mitigation outlined on the following page. Much time and energy went into the research and validation of these findings and recommendations, all of which is expounded on in more detail in the following document. Thank you for taking this information into consideration.

Recommendations to mitigate effects of Displacement:

(Note: more detailed recommendations are provided on page 10)

- This re-zoning request should not be approved until the following mitigation strategies are considered and implemented:
 1. The City of Flagstaff, a trusted non-profit agency, and Landmark Properties should have a legally binding relocation plan in place to ensure that residents of Arrowhead Village have access to viable affordable housing options before the re-zoning is approved and/or before there is any legal obligation for residents to vacate Arrowhead Village. Relocation packages must:
 - a. ensure home ownership
 - b. include enough funding that ensures home ownership, covers extra transportation, childcare and moving expenses
 - c. be managed by a community-trusted non-profit
 - d. ensure Landmark provides funding for non-profit assistance.
 2. Landmark Properties should consider the purchase and development of land in Flagstaff that could house 56 mobile homes. The parcel of land should be located close to schools, viable sources of employment and an affordable grocery store.
 3. Landmark Properties should allow for flexibility in move out dates to prevent cost burden on displaced residents.

Recommendations to mitigate effects of Neighborhood Preservation:

(Note: more detailed recommendations are provided on page 14)

- This re-zoning request should not be approved until the following mitigation strategies are considered and implemented:

Traffic Safety

1. Occupants do not move in until traffic calming measures are in place in key areas in the community.
2. Traffic calming considers the special uses of the neighborhood and vulnerable populations.
3. TIA completed for entire neighborhood considering high-risk driving patterns and increase in traffic associated with 650 students

Compact student living/crime

1. NAU to implement an off-campus student policy as outlined at Aurora University and have all students sign code of conduct agreement.
2. 24 hour on-site security at The Standard
3. Landmark Properties to coordinate with FPD to create security plan.
4. Landmark Properties must develop system for LPV residents to file grievances regarding student misconduct.

Neighborhood Character

1. Reduce total number of students to 400.
2. Reduce height to match College America building
3. Consider accommodating families and students at The Standard
4. Incentivize retail operations that are appropriate/relevant stable residents of LPV and promote health

Health Areas of Consideration

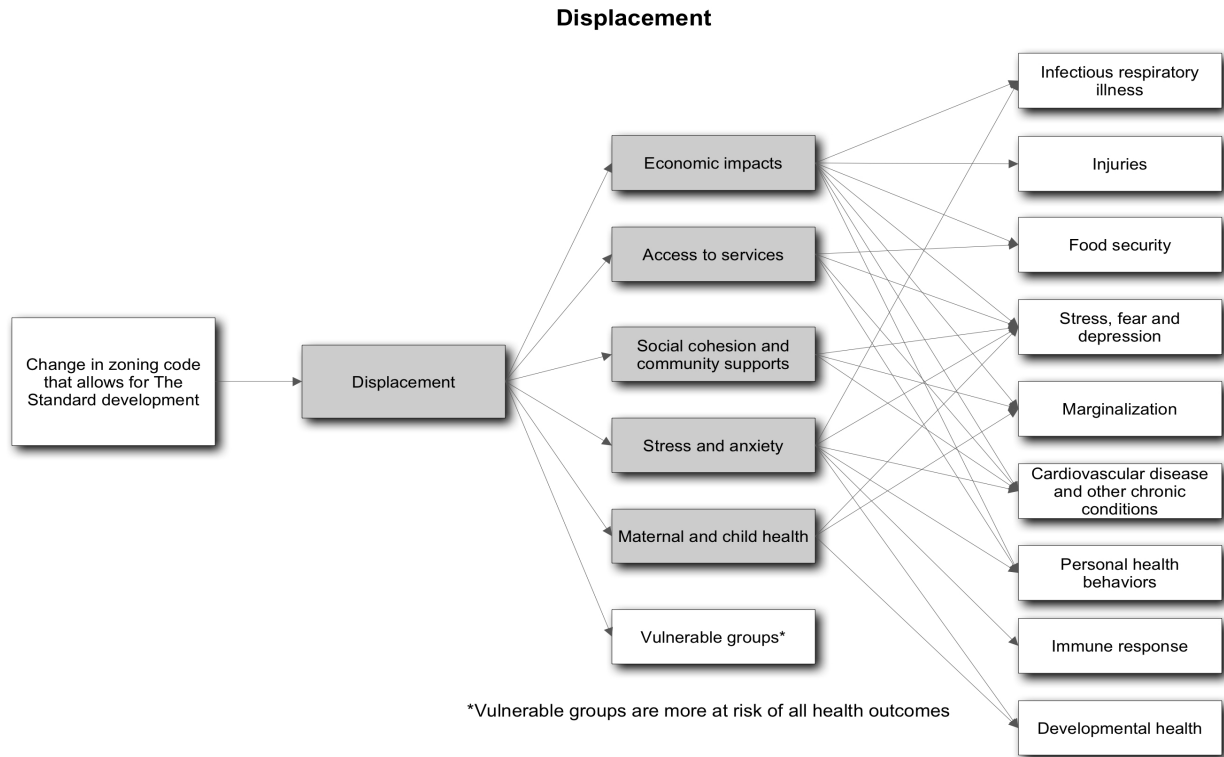


Figure 1. Pathway diagram depicting potential health effects of Displacement

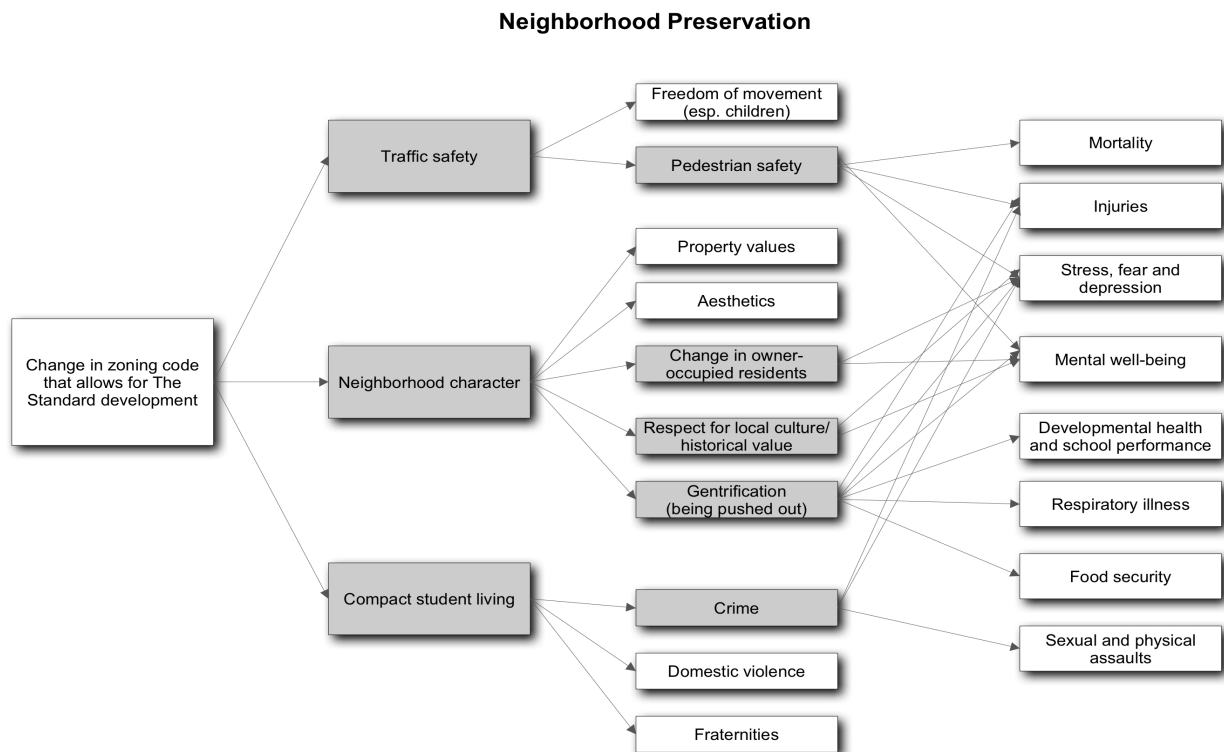


Figure 2. Pathway diagram depicting potential health effects of Neighborhood Preservation

The remainder of this document presents a detailed analysis for the HIA and supplements the information provided in the Snapshot. It is highly recommended that this section be reviewed as part of the re-zoning package. The diagrams above illustrate the health pathways under examination in The Standard Health Impact Assessment. The greyed out boxes, representing health determinants, are the areas of most importance to the community members and are therefore the focus of this letter.

DISPLACEMENT

If the zoning code is changed, approving The Standard development, it will result in the displacement of the families that currently live in 56 mobile homes in Arrowhead Village. This section speaks to the changes in economic impacts, access to services, social cohesion and social supports, stress and anxiety, and maternal and child health that could result from displacing these families.

How The Standard affects economic impacts: Economic impacts associated with displacement include increased cost of housing, potential changes in employment, transportation and childcare costs.

According to Landmark Properties, twenty-nine of the mobile homes in AV are older than 1977 and therefore cannot be moved to another mobile home park due to age restrictions. This means that those families will have to abandon their homes and find other housing accommodations. The State Relocation Fund would offer these residents \$1250 for the abandonment of a single wide trailer or \$2500 for a double wide trailer; however, the criteria established for these funds would mean that the majority of AV residents would not be eligible for this money (see Table 1 for details of relocation packages). Landmark Properties is also offering to pay residents for the cost of a comparable replacement unit. Examples of cost calculations range from \$1163 to \$5235. Used mobile homes have varying prices. A search on mhvillage.com and www.realtor.com revealed that used mobile homes in Flagstaff range from \$19,900 to well over 200,000, therefore these comparable replacement costs do not adequately cover the cost of a new home for those residents being forced to abandon their homes. Those being relocated would also receive up to \$140/month from Landmark to assist with monthly rent or mortgage payments for 36 months. This value is the difference between the monthly lot fee at AV and the average lot fee at other mobile home parks in Flagstaff. The subsidy assumes that residents from AV will be able to buy a new mobile home to place on an available lot in Flagstaff. There is no evidence to suggest that there are 56 lots available in Flagstaff or that these residents will be able to afford new homes in the price range listed above.

If Landmark Properties estimates are correct, there are 26 mobile homes that are younger than 1977 that have the potential to move their homes to different lots in Flagstaff. Based on a survey of 7 mobile home parks in Flagstaff, there were currently 23 lots available. However, it is likely that many AV residents would be unable to meet the rental criteria at new mobile home parks, therefore there is no guarantee that these residents would be able to relocate their mobile homes within Flagstaff. For any residents that did meet the criteria, average rental rates for lots are \$425/month for a single-wide, a 67% increase in rent from what residents currently pay at Arrowhead; however, Landmark has offered to pay up to \$140/month to make up the difference for a time period of up to 36 months. Residents moving their mobile homes can apply to the State Relocation Fund to ask for reimbursement of moving expenses, up to \$5,000 for a single wide and \$10,000 for a double wide. These funds would be reimbursed directly to the moving company and not the mobile home owner. Landmark Properties has stated that they will cover relocation expenses that exceed the State reimbursement. Assuming the current occupants of the 26 movable mobile homes found lots to put their homes on in Flagstaff, and they all received the state relocation funds to cover moving costs, there should be minimal costs associated with these residents moving their mobile homes. However, there is no evidence to suggest that residents of AV would meet the rental criteria at new mobile home parks and it is uncertain if there are 56 lots (movable homes and replacement homes for home owners who have to abandon their trailer) available to put trailers on, therefore there is no guarantee that these families would be able to relocate their mobile homes within Flagstaff.

Renters who are evicted from AV due to The Standard have also been offered assistance from Landmark Properties at \$140/month for 36 months. All renters and homeowners may also receive bonuses for moving out before the 6-month deadline to relocate.

All homeowners in AV may also collect a moving allowance from Landmark Properties. The size of the allowance depends on the number of rooms with furniture the mobile home has. For one room the household would receive \$700 and then each room thereafter would be an additional \$100.

Table 1. Details of relocation package offered to Arrowhead Village residents.

Funding source	Financial compensation	What this means for residents of Arrowhead Village
Home Owners (Homes pre-1977)		
State relocation funds	Up to \$1250 for SW, \$2500 for DW.	Eligibility stipulations around these funds would make most AV residents ineligible to receive this money.
Landmark Properties*	Replacement housing allowance ranging between \$1163-\$5235 depending on age and size of trailer	Used mobile home sales in Flagstaff range from \$19,900 (1) to over \$200,000 (mhvillage.com; www.realtor.com). Residents would still require a down payment to purchase a home. Income levels of AV households make most mobile home purchases prohibitive.
Homeowners (Home post-1977)		
State relocation funds	Up to \$5,000 for SW, \$10,000 for DW. LP will cover additional costs beyond state funds.	Money goes to the moving company, not the resident. Moving a mobile home a short distance costs between \$3,000 and \$10,000 considering both moving and set up costs. Repairs may also be required before some older mobile homes can be moved. This financial assistance would help alleviate the costs of moving a trailer. (http://homeguides.sfgate.com/average-cost-deliver-set-up-mobile-home-96554.html)
Renters		
See All residents		
All residents		
Landmark Properties	Rent/down payment assistance of up to \$140/month for 36 months	Financial help to alleviate increased rental costs. Costs based on relocation to another mobile home park. Assumes residents can a) find comparable housing at other parks; b) mobile home parks have availability to house trailers that can move, and c) residents would be eligible to move into another mobile home park. This subsidy would not allow for renters and buyers to move into other home options. Average rent for a two-bedroom apartment is \$1,066 and average home prices are \$294,400.
Landmark Properties	Moving allowance starting at \$700 per household, \$100 more for each additional room with furniture	This allowance would likely cover the cost of a one day move if residents rented a moving truck and self-loaded and unloaded belongings. The cost of movers, which older residents and residents with mobility challenges would require, would likely exceed this allowance. The State Relocation Funding would cover most moving expenses.
Landmark Properties	Financial assistance for those who move out early. \$1283 if relocate	This bonus provides incentive for people to relocate early. This money could help residents with extra expenses associated with relocating; however, only

	in 45 days; \$855 if relocate within 90 days.	available to those who secure housing in a short period of time.
Abbreviations: SW – single wide trailer; DW – double wide trailer; LP – Landmark Properties Notes: *Landmark Properties will collect titles and be reimbursed by State funds in all cases except where LP funds exceed state allowances.		

Other possible housing options for AV residents include homes, apartments or public housing. Although these are options, some AV residents have made it clear in numerous community consultations that they do not want to transform from being homeowners to renters as a result of The Standard. Owning a home provides these residents a sense of pride and accomplishment and they have invested money and personal time into personalizing their homes. The World Health Organization recognizes that one component of the meaning of “home” as *a protective, safe, and intimate refuge where one develops a sense of identity and attachment* is strongly linked to health outcomes.² Being forced to become a renter was one of the biggest concerns of many residents.

The cost of housing has dramatically increased in Flagstaff over the last decade. The average rent for a two-bedroom apartment is \$1,066 and the median cost of a house is \$294,400.³ Based on statistics provided in the Flagstaff Regional Plan 2030 it is estimated that 20% of residents making \$20,000 or less in Flagstaff pay more than 30% of their household income on housing – meaning these residents are living in unaffordable housing. The average household income in LPV is \$24,000; available income data suggest average income in AV is almost half this amount. The cost estimates provided above indicate that most housing in Flagstaff is unaffordable for households making less than \$20,000. Public housing, which would be an affordable option, has a current wait time of 6 months to 2 years depending on several different factors meaning this housing option would not likely be available for everyone that needs it in the timeline that Landmark Properties is proposing (6 months).

Displacement may also force residents to live further from their jobs, heightening the risk of losing a job, and increasing commuting costs and/or time. The LPV neighborhood plan reported that over half the residents of LPV lived within a 15-minute commute of employment. Depending on where places of employment are located, having to move further out of the city center could substantially increase commute times and costs and possibly risk of job loss. Losing social support networks in the neighborhood can also increase childcare costs for some residents, which can cause further challenges in finding or keeping employment.

Evidence of health effects: The health effects of increased cost of housing for low-income families are well documented.^{4 5 6 7 8} Increased housing costs lead to substantial deterioration of mental health. Evidence also suggests that residents forced to pay more money on housing may prioritize their income on housing at the cost of other necessities such as utilities, food and safe living environments. This can alternatively lead to increases in food insecurity, injuries and poor respiratory health for household members. Families also tend to share housing to reduce costs, causing overcrowding. Overcrowding is associated with many poor health outcomes including injuries, respiratory illness, poor mental health, poor performance in school, and domestic violence.⁹ The most severe impact of increased costs on housing is homelessness, which is associated with many detrimental health impacts. Unemployment is associated with many poor health outcomes including poorer mental health outcomes, poor health behaviors (i.e., smoking, heavy drinking, use of psycho-active drugs), and aggravation of existing health outcomes.

Impacts on residents of AV: Residents of AV will face substantial financial costs as a result of displacement, including increased rent or mortgage payments, increased transportation and childcare costs and possible job loss if replacement housing is located far from places of employment. The relocation packages provided by Landmark and State funds will likely provide some interim relief on finances for some residents relocating. However, the regulations determining who is eligible for relocation packages and state funds make it unlikely that many residents would receive enough money to cover increased expenses resulting from relocation. The lack of feasible affordable housing options in

Flagstaff will make it particularly challenging for residents of AV to find suitable accommodation. Establishing a path to home ownership for displaced homeowners in AV will be essential for protecting mental health and wellbeing of these residents. Without mitigation it is expected that residents of AV will experience negative health effects associated with economic impacts including depression, stress and anxiety, injuries, changes in food security, infectious respiratory diseases and changing personal behaviors that increase risk of chronic illness.

How The Standard affects **access to services**: Currently the residents in AV are within walking distance to a major 24-hour grocery store and other shops that provide essential home supplies. In community meetings some residents stated that having the grocery store so close and open 24 hours is essential as it allows them the freedom to buy food and other supplies for the house when they can afford the time to do so. Many families precariously balance childcare and employment meaning time available to “run” to the store is very limited and sometimes must occur at very early or very late times of day. Having no vehicle or sharing one vehicle that is often used by the person traveling to work also limits trips to the grocery store and the quantity of food that can be purchased. Losing the convenience of a 24-hour grocery store that is within walking distance may limit the number of times groceries can be purchased and lead to increased purchase of foods with longer shelf life and reduced purchase of fresh produce that expires quicker but is healthier. Nine out of ten households surveyed in AV reported that a change in food accessibility would bring hardship to their families and would therefore limit the area to which they could relocate.

Possible health effects: Supermarkets offer a wide variety of healthy foods at affordable prices, therefore proximity to supermarkets can be seen as an indicator of access to healthy foods.¹⁰ A study found that in Hispanic neighborhoods there is one-third (32%) the number of supermarkets as non-Hispanic neighborhoods, which is a health inequity that contributes to health disparities.¹¹ Some evidence suggests living in areas with a higher density of grocery stores is associated with lower Body Mass Index (an indicator of healthy body weight).¹²

Impacts on residents of AV: The presence of a 24-hour grocery store in walking distance to AV residents currently acts as a protective mechanism against poor dietary health and associated poor health outcomes and supports health equity in a low-income community with many health inequalities. How access to services will be impacted by The Standard greatly depends of the location of other affordable housing options in Flagstaff and their proximity to affordable grocery stores. If residents can find affordable housing options within the city limits the chances of being close to a grocery store is higher than housing on the outskirts of the city. Inner city housing locations close to grocery stores will be protective for health, while housing locations further from the inner city will be detrimental to health and increase health inequities within the population.

How The Standard affects **social cohesion and community supports**: The Standard will displace approximately 170 people from Arrowhead Village (estimate based on an average of 3 people per household). The movement of these families will substantially disrupt social support networks that have formed in the neighborhood. In surveys conducted with AV households, five out of 10 households participated in social gatherings (e.g. Barbeques) with their neighbors, and 30% of households relied on neighbors for social or emotional support, while 30% also shared resources with each other (e.g. vehicles, bikes, housing/kitchen supplies). All residents surveyed talked about the importance of this community for its tranquility, family atmosphere and supportive nature. Residents in geographically and culturally defined neighborhoods, like Arrowhead, often provide a network for exchange of goods and services such as childcare or sharing of food. These residents, although all unique and part of differing social groups, can also share a collective identity and a sense of belonging, key protective factors against negative effects of marginalization and stigmatization that often occurs with mobile home park residents. Community meetings and survey data indicate that there are protective social support mechanisms at play in Arrowhead Village. These social supports will be lost if residents are displaced.

Evidence of health effects: Displacement has been linked to decreases in social support networks and social cohesion.¹³ Social support networks and social cohesion amongst neighbors are key determinants of health. People with strong support networks have access to emotional and practical resources that help them solve problems enabling them to cope with life's stresses more easily and make healthier lifestyle choices. Conversely, those with weak or non-existent support networks have higher rates of depression, chronic illness, morbidity, and have shorter life expectancy.¹⁴

Impacts on residents of AV: Relocation will fragment any existing social support networks amongst AV residents. This increases risk of poor health until these residents can re-establish themselves in new communities. Marginalization of displaced residents in new communities can present challenges in forming new social networks.

How The Standard affects **stress and anxiety**: Some residents of Arrowhead village are already experiencing high levels of stress over the potential for being displaced, stating that regular family activities, including getting exercise and going for walks with neighbors, have stopped, people have lost sleep thinking about what is to come, and social gatherings that were once jovial and a stress relief are now focused on the proposed Standard development. Impacts to mental health primarily result from stress responses both before and after displacement occurs. Before the displacement occurs residents often become worried over the anticipation of relocation (e.g. thinking about finding another home, the affordability of new housing, children relocating to different schools and changing friends); from the loss of community that may result; and from a lack of control over decisions that affect their lives.^{15 16 17} Simply being informed about possible relocation has been shown to have negative health effects.¹⁶ Following forced displacement, residents can continue to feel stress, grieving, loss, and poor mental health. Stigmatization within new communities for the relocated individuals can also contribute greatly to stress responses.¹⁵

Evidence of health effects: Stress and anxiety are thought to contribute to the development of many poor health conditions including heart disease, stroke, high blood pressure, upper respiratory disease and poor immune response.¹⁸ Exposure to stress can also contribute to behaviours such as smoking, less physical activity, over-consumption of alcohol and less-healthy eating habits.¹⁹

Impacts on residents of AV: Residents of Arrowhead Village are already being impacted by stress - losing sleep, worrying about the impacts on their children and their employment, as well as having concerns over financial stability and what the future brings for the health of their family. These stresses will continue after displacement occurs for various time periods depending on each family's circumstances and other factors that govern the ability to cope with large life changes. Without mitigation stress before and after displacement is expected to increase poor health outcomes.

How The Standard affects **maternal and child health**: The Standard would cause approximately 56 families, and many children to relocate to different communities. These children would need to change schools depending on the location of new housing and would be removed from neighborhood friends, teachers, and supervisory supports in the neighborhood. In a community meeting held on May 16th it was clear that many mothers in AV were concerned about how being displaced from their homes would impact the health of their children and the stability in their children's lives. Key concerns included their children having to change schools, fragmentation of relationships with peers and educators, losing childcare supports, and the ability for kids to play freely in new living situations without consequences.

Evidence of health effects: Children and mothers are particularly vulnerable to the effects of displacement. Evidence suggests that housing displacement can lead to poorer health, developmental risk and lower weight in children.²⁰ Other impacts for children include fragmentation of relationships with peers and educators, and altered access to care and other supervision often provided by community networks. Data also indicate that displaced children find it difficult to integrate with peers following displacement and are therefore more vulnerable to marginalization.²¹ Finally, the stress that parents face over housing displacement can also affect the health of their children. Pregnant women have also been

shown to have a greater risk of low-birth weight babies after displacement compared to those that have not experienced displacement.²²

Impacts on residents of AV: Children who change schools will experience fragmentation from neighborhood and school peers, educators, childcare or supervision supports, and experience the stress felt by their parents. If no mitigation measures are put in place, these experiences will result in negative health outcomes for children possibly including developmental delays, lower weight, poor mental and physical health, and health effects related to marginalization. Stress from displacement that is experienced by expecting mothers in AV may also affect health of their unborn children.

Recommendations for displacement

Approximately 170 people will be displaced from Arrowhead Village if the zoning code is changed and The Standard is developed. The criteria established for receiving financial assistance and for securing homes in other locations in Flagstaff mean that the majority of Arrowhead Village residents would not be able to find viable affordable housing options in Flagstaff. It is recommended that to mitigate negative health effects of displacement on Arrowhead Village residents that the re-zoning request is not approved until the following mitigation strategies are discussed and implemented:

1. The City of Flagstaff, a trusted non-profit agency, and Landmark Properties should have a legally binding relocation plan in place to ensure that residents of Arrowhead Village have access to viable affordable housing options before the re-zoning is approved and/or before there is any legal obligation for residents to vacate Arrowhead Village. The plan shall include the following stipulations:
 - a. Each homeowner is automatically eligible for a compensation package that enables home ownership in another location in Flagstaff.
 - b. Compensation packages from Landmark Properties are to include: sufficient funds to allow residents to secure a new home, excess transportation costs associated with traveling to places of employment or school, excess childcare costs and any expenses associated with moving. Residents have calculated that \$35,000 would allow for the ability to secure a new home.
 - c. Once legally binding compensation packages are developed, the predetermined amount of funds for each homeowner is to be transferred over to a local non-profit organization that is trusted and approved by the community. The non-profit will be responsible for making these funds available to displaced community members on terms agreed upon by the community.
 - d. A community-trusted non-profit organization work with residents of Arrowhead Village to ensure each resident has an established path to home ownership and to develop compensation packages that would allow for home ownership. Landmark Properties is to supply funding for the non-profit organization.
2. Landmark Properties should consider the purchase and development of land in Flagstaff that could house all 56 mobile homes. The parcel of land should be located close to schools, viable sources of employment and an affordable grocery store.
3. Landmark Properties should allow for flexibility in move out dates to prevent cost burden on displaced residents. Move out dates should allow enough time for residents to secure funding to purchase an alternate home and residents should not be financially penalized for the time taken to secure housing.

NEIGHBORHOOD PRESERVATION

The 2011 La Plaza Vieja Neighborhood Plan's vision statement is "Historical La Plaza Vieja will be a safe neighborhood which respects and preserves the cultural dignity of the neighborhood." It goes on to read: "La Plaza Vieja enhances growth and development by: **maintaining the architectural language** of the existing buildings and environment; **preserving** a number of historical buildings; **infilling** vacant lots with appropriate buildings; **honoring** significant historical places, names and persons; **enhancing** the community center for children and adults; **promoting local economic growth** that nurtures local businesses and employs neighborhood residents; and provides **safe and beautiful** streets for pedestrians, bicycles and cars within the neighborhood and connecting to adjacent neighborhoods."²³ It is this vision that guides the assessment of effects on Neighborhood Preservation as a result of a zoning change that will allow for The Standard development.

How The Standard affects traffic safety. Having a neighborhood that provides a safe environment for pedestrians and cyclists is very important to the residents of La Plaza Vieja. The Standard Development has the potential to change safety in the community by adding 650 more people and their cars to the streets within and around LPV.

Many of the incoming students will cross Milton Road to access NAU campus and cross Route 66 to access the shopping plaza, which houses inexpensive fast food options and a major grocery store. These crossings have previously been identified as problematic for pedestrian safety in a Walkability Audit.²⁴ Traffic data from 2013 also indicate that there were 55 accidents at the intersections of Clay Ave., Milton Rd. and Butler Ave. There were also six accidents along Blackbird Roost and 9 accidents at the intersection of Malpais Ln. and Milton Ave, another entrance into the community.²⁵ It cannot be predicted how many students will walk vs. drive to campus or to the shopping complex; however, it can be assumed that both pedestrian and vehicle traffic will increase on the streets within and around LPV as a result of The Standard. Residents have long worried about the pedestrian and traffic safety issues at the intersections mentioned above, as well as drivers using the neighborhood entrances (Clay Ave., Blackbird Roost, Tucson and Phoenix Aves) to cut through the neighborhood from Milton to Route 66. With the growing population of Flagstaff, including a new student housing complex proposed near Route 66 and Woodland Blvd., cut throughs from Milton to Route 66 will be more numerous as traffic further worsens on Milton Rd. The current fast moving traffic in the neighborhood has caused residents to worry about the safety of pedestrians, especially children who play in and about the community and residents with mobility challenges. Administration staff at Haven Montessori school have expressed concern over the increase in traffic, stating that increased traffic "will only deepen the concerns that we already face."²⁶ Increasing traffic in the area without mitigation measures will exacerbate these safety concerns and the risk of accidents and injuries for both the current residents of LPV and the incoming students.

Evidence of health effects. There is a lack of literature on the effects of student housing and traffic safety issues; however, the CDC reports that although young adults (15-24 years) make up only 14% of the US population, they account for over 30% of total costs of motor vehicle injuries among males and 28% of total costs among females.²⁷ Data supports the relationship between increased traffic increasing risk of traffic accidents.^{28 29 30} Traffic safety is affected by driver behavior, number and type of vehicles on the road, the various uses of the road (e.g. pedestrian, cyclist, vehicle), and the capacity of roads to expand usage. Driver behavior that poses increased risk includes drinking and drug use, excessive speeds, distracted driving and being tired – which are all common behaviors in young adult drivers.^{31 32 33} In addition, intersections and areas with children, elderly or others with mobility challenges present are high-risk areas for traffic collisions.

Impacts on residents of LPV. The Standard will increase the traffic volume of high-risk drivers in LPV. Until traffic safety measures are installed, pedestrian safety will decrease on the streets within LPV (particularly Clay, Blackbird Roost, Phoenix and Tucson), on Milton Road and on Route 66. Pedestrians at the greatest risk of injury or death due to traffic accidents include children, elderly, and those with mobility disabilities.

How The Standard affects compact student living. Safety is important to the residents of LPV, not only in terms of traffic, but also in terms of crime. Crime was the primary concern around the compact student living environment of The Standard. One way to determine whether The Standard will result in changes in crime is to look at service call levels for similar developments in Flagstaff. Recent data provided by the Flagstaff Police Department indicate an off-campus student housing development project called The Grove resulted in 350 service calls during the 2012-2013 student year.³⁴ Assuming The Grove was at full occupancy (562 residents) this equates to 0.62 service calls per resident between the months of August and May. Applying that service call rate to The Standard (650 residents) results in an estimated 403 service calls during the 10-month school session. Data for LPV indicate that in 2013 there were 411 service calls to La Plaza Vieja neighborhood.³⁵ The Standard therefore has the potential to nearly double the number of service calls to the LPV community. Also important to note is that the number of disturbing the peace calls at The Grove was second only to the downtown bar area. Introducing this level of crime and subsequent service calls into LPV neighborhood could substantially alter the community environment, causing annoyance and fear amongst residents.

Evidence of health effects. Increases in drunken disorderliness, noise, parking violations, public disturbances such as broken glass, garbage or vandalism have been observed in neighborhoods that house large numbers of college students.^{36 37 38 39 40} Crime rates tend to also be high in student living environments. For example, the White House Task Force to Prevent Students from Sexual Assault just released a report stating that one in five women are sexually assaulted in college.⁴¹ Current crime rates in LPV are relatively low compared to other communities in Flagstaff.

Impacts on residents of LPV. Based on data from the Grove and anecdotal evidence from other university towns with high numbers of off-campus student housing it is expected that crime will substantially increase in LPV resulting in more disturbances to the peace (including drunken disorderliness, noise, parking violations and physical disruption) and assaults (sexual and physical). This increase in call levels will not only affect the residents of LPV but it will also impact the capacity of the Flagstaff Police Department to service other areas of town. Capacity of the FPD to maintain staff due to funding restrictions has recently received the attention of the media.⁴² Without mitigation, some residents will feel unsafe in their neighborhood with the presence of large numbers of students and the increases in crime and will experience annoyance and stress related to disturbances.

How The Standard affects neighborhood character – Respecting and preserving the cultural identity of LPV is important to residents according to the 2011 LPV Neighborhood Plan and community meetings held as a part of this HIA. Priorities of LPV residents include: obtaining a higher proportion of owner-occupied housing to renter-occupied housing, infill developments that match the context and neighborhood culture, mixed-use development that supports local employment and access to services; and neighborhood development that supports the continuance of families that have lived in the neighborhood for generations.

The Standard will result in the influx of 650 student renters, increasing the already high proportion of renter-occupied dwellings and residents in the neighborhood. Instead of moving closer to their neighborhood goal of 40% owner-occupied dwellings and 60% renter occupied dwellings⁴³, the Standard will further exacerbate the number of renter-occupied dwellings. The influx of 650 students would result in a 50% increase in the population of LPV and significantly decrease the proportion of residents who own and occupy homes. Student renters present a challenge in promoting the strong sense of community that long-time LPV residents would like to maintain. It is felt that increasing the proportion of residents who are 'isolated' or temporarily living in a privately managed student housing complex will reduce investment into the neighborhood and community.

The long-time residents of LPV support infill and re-developments in the neighborhood that are sensitive to its context and neighborhood culture and preserve historic buildings rich with Flagstaff history and architecture. For the community, they envisioned medium-density housing with emphasis on residential, work-force housing, single-family, duplexes and triplexes. The current plans for The Standard are to build a 74 foot and a 64 foot building as well as a 6-story parking

garage near Blackbird Roost and Route 66. The height of the proposed buildings will surpass the height of any buildings in the neighborhood by a substantial amount and do not align with the historic character of the neighborhood that they have asked to be preserved in the neighborhood plan. Besides the height, all other components of this project contradict the types of infill developments that residents envisioned for their community (i.e., medium density, residential, work-force housing, single-family, duplexes and triplexes).

Current plans for The Standard indicate that the bottom floor of each building will have spaces for retail. This proposed land use has the potential to be positive for the community, bringing in needed services and businesses to the community and supporting economic vitality. The impact of these retail stores on the health and wellbeing of long-time residents in LPV greatly depends on whether or not the businesses: a) are affordable; b) cater to the needs of both students and older populations living in the neighborhood; c) provide employment opportunities for residents; and d) are safely accessible, especially for the elderly and residents with disabilities. Ensuring that these factors are considered in the leasing of business spaces would contribute to the goals as laid out in the neighborhood plan and improve the wellbeing of LPV residents.

The increase in renter-occupied dwellings, the influx of 650 students, and the addition of higher-rise buildings that are not designed to support the historic values of the community move LPV away from the vision that residents created for it in the 2011 LPV Neighborhood Plan. Some residents see these deviations from the community vision as threatening and feel that these changes will force residents to relocate to other areas. One of the main concerns that came up in meetings with LPV community members is that there is an overall feeling of “being pushed out” of the neighborhood. ‘Being pushed out’ captures the essence of gentrification. Gentrification generally occurs in low-income areas and results in an influx of middle or upper class people and involuntary displacement of lower income residents. Many see gentrification in a positive light, bringing new business and other economic opportunities to an area and beautifying a community to make it more attractive for higher income buyers. Gentrification and displacement however, generally go hand in hand. By beautifying an area and bringing in higher-income residents, property values and therefore property taxes generally increase, as do rental rates. This can make housing for low-income residents unaffordable, forcing people to move to a more affordable area or causing people to make hard decisions over allocation of limited financial resources. A more complete discussion of the health effects of displacement can be found in the Displacement section of this letter.

When students are the gentifiers, often the fact that gentrification is happening is masked by the characteristics of students.⁴⁴ In typical gentrification, gentrifiers are usually higher income and higher educated residents that move into a lower class neighborhood. Students, however, are typically of middle to upper class descent but are large debt carriers, mostly unemployed with low educational attainment. While gentrification tends to push existing residents out of their neighborhood by raising the cost of living and making it unaffordable for low-income residents to remain, student housing has mixed effects on property values.⁴⁵ What student housing can do is make the community undesirable for current residents by changing the neighborhood culture and value system and increasing social disruption to a point where long-time residents no longer want to live there. This, in essence, is gentrification.⁴⁶ Although some residents support students living in LPV and support infill developments, they have their concerns about the concentration of students at The Standard and do not want to be pushed out of the neighborhood where their families have lived for generations. Residents prefer that new development in their neighborhood respect the historic character and cultural identity of LPV by being on a smaller scale and supportive of family lifestyle.

Evidence of health effects Neighborhoods with high amounts of stability can foster lower levels of stress, strong neighborhood ties, and overall more positive health outcomes.^{47 48} When neighborhoods change rapidly, low-income residents are usually impacted the most, increasing trends of health disparities. The most noticeable effect though is often the “social loss” that comes from fractured neighborhoods. Strong social ties and support networks that are formed over generations of living together are strong health protective mechanisms. When families begin to leave the neighborhood these ties and networks are broken creating excess stress and other psychological effects that can impact disease resilience.^{49 50}

Families that are displaced as a result of gentrification are also at risk of health effects discussed under Displacement.

Impacts on residents of LPV: The multi-generational cultural and historic identity of LPV will likely change with the influx of 650 student renters into the community. With an ever increasing proportion of renter-occupied dwellings, an infill development that mostly contradicts the types of infill developments that residents envisioned for their community, the impacts of students on crime and traffic safety discussed elsewhere in this report, many residents feel like they are being pushed out. Unless mitigation is considered, some residents of LPV will experience increased stress, decreased quality of life, social loss and possibly displacement as a result of The Standard.

Recommendations for Neighborhood Preservation

The current plans for The Standard are not aligned with the historic and cultural identity of La Plaza Vieja as envisioned by 2011 La Plaza Vieja Neighborhood Plan that was developed by the Neighborhood Association and community members with the cooperation of representatives of the Planning and Zoning Commission, City Council and County Supervisors. Although this plan was not officially adopted by the City, the goals that were presented still accurately depict appropriate development milestones for LPV. It is recommended that to mitigate negative health effects of the proposed development on LPV residents that the re-zoning request is not approved until the following mitigation strategies are discussed and implemented:

Traffic

1. Occupants shall not be allowed to move into The Standard until traffic calming measures are installed on key streets within the neighborhood, including but not limited to: Clay Ave., Blackbird Roost, the intersection of Clay & Kingman, and the area around Guadalupe park.
2. Traffic calming measures should consider the special uses of the neighborhood including: baseball games and practices on weekends at Guadalupe Park, use of strollers to transport children, and residents with mobility challenges.
3. A traffic impact assessment (TIA) should be completed and expanded to include the entire neighborhood of La Plaza Vieja before development is approved. The TIA should consider the increase of approximately 650 vehicles on the streets and at intersections within and around La Plaza Vieja and the high-risk driving patterns of college-aged students.

Safety

1. Northern Arizona University implement an off-campus student policy as outlined for Aurora University (<http://www.aurora.edu/student-life/resources/off-campus-housing/au-policy-off-campus-behavior.html#ixzz33RzjZpse>) and have all NAU students sign a code of conduct that includes academic consequences for criminal or disruptive behavior in Flagstaff communities.
2. Ensure that Landmark Properties implements 24-hour on-site security at The Standard.
3. Landmark Properties should solicit the help of the Flagstaff Police Department (FPD) to develop security plans for The Standard.
4. Landmark Properties should develop a communications strategy that allows residents of LPV to file grievances about misconduct of student-residents of The Standard and be ensured timely follow up with relevant authorities.

Neighborhood Character

1. The number of occupants of the Standard should be reduced to 400 to achieve medium density goals, increase traffic safety, decrease FPD services calls and help preserve historic and cultural character of LPV.

2. Reduce the height of all proposed buildings to match or be lower than the College America building.
3. Consider the inclusion of both families and students at The Standard to improve affordable housing options in Flagstaff and decrease the concentration of students in LPV.
4. Incentivize retail businesses that are affordable; cater to the needs of both students and older populations living in the neighborhood; provide employment opportunities for residents; and are safely accessible, especially for the elderly and residents with disabilities. Survey the community using various methods to better understand retail needs for the community.

This health impact assessment was conducted by an independent health impact assessment consultant with the help of the LPV Neighborhood Association, the residents of Arrowhead Village, Hermosa Vida community organizers, and the anthropology department at NAU. The assessment of effects presented stems from the research literature and the lived experiences of La Plaza Vieja residents. In this way we can be confident that the results are accurate both locally and scientifically. We are especially grateful to the community members who contributed time and energy to this project. Thank you as well to those who reviewed this document and provided guidance and input into the HIA.

References

- ¹ National Research Council. *Improving Health in the United States: The Role of Health Impact Assessment*. Washington, DC: The National Academies Press, 2011
- ² Bonnefoy J. 2007 Inadequate housing and health: an overview. *Int. J. Environment and Pollution* 30 (3/4): 411-429.
- ³ City of Flagstaff. 2014. Flagstaff Regional Plan 2030. Place Matters. Adopted January 14, 2030.
- ⁴ Greene D, Tehranifar P, Hernandez-Cordero LJ, Fullilove MT. I Used to Cry Every Day: A Model of the Family Process of Managing Displacement. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2011;88(3):403-16.
- ⁵ Robinson, E. and R. Adams. 2008. Housing stress and the mental health and wellbeing of families. *Australian Family Relationships Clearinghouse*.
- ⁶ Pratt A. A health impact assessment of social housing redevelopment in Devonport, Plymouth. 2008:1-43
- ⁷ Keene DE, Geronimus AT. "Weathering" HOPE VI: The Importance of Evaluating the Population Health Impact of Public Housing Demolition and Displacement. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2011;88(3):417-35.
- ⁸ Jacobs DE, Wilson J, Dixon SL, Smith J, & Evens, E. The relationship of housing and population health: A 30-year retrospective analysis. *Environmental Health Perspective*. 2009; 117(4): 597-604.
- ⁹ Office of the Deputy Prime Minister. 2004. *The Impact of overcrowding on health and education: A review of the evidence and literature*. London: UK
- ¹⁰ Treuhaft & Karpyn. 2010. *The Grocery Gap, Who has Healthy Food and Why it Matters*. Policy Link and The Food Trust.
- ¹¹ *American Journal of Preventive Medicine* 44 (2007): 189–195.
- ¹² *American Journal of Preventive Medicine* 33(4), Suppl1:S301–S307
- ¹³ Atkinson R. 2000. The hidden costs of gentrification: Displacement in central London, *Journal of Housing and the Built Environment* 15:307-326.
- ¹⁴ World Health Organization (2003). *Social determinants of health: the solid facts*. 2nd edition. R. Wilkinson and M. Marmot. Copenhagen, World Health Organization.
- ¹⁵ Greene D, Tehranifar P, Hernandez-Cordero LJ, Fullilove MT. I Used to Cry Every Day: A Model of the Family Process of Managing Displacement. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2011;88 (3):403-16.
- ¹⁶ Keene DE, Geronimus AT. "Weathering" HOPE VI: The Importance of Evaluating the Population Health Impact of Public Housing Demolition and Displacement. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2011;88(3):417-35.
- ¹⁷ Pratt A. A health impact assessment of social housing redevelopment in Devonport, Plymouth. 2008:1-43.
- ¹⁸ Schneiderman, N., et al. 2005. Stress and health: Psychological, Behavioral, and Biological Determinants." *Annu. Rev. Clin. Psychol.* (1): 607–628
- ¹⁹ Rod et al., 2009. Perceived stress as a risk factor for changes in health behaviour and cardiac risk profile: a longitudinal study. *Journal of Internal Medicine* 266; 467–475.
- ²⁰ Cutts DB, Meyers AF, Black MM, Casey PH, Chilton M, Cook JT, et al. US Housing Insecurity and the Health of Very Young Children. *American Journal of Public Health*. 2011;101(8):1508-14.
- ²¹ Keene DE, Geronimus AT. "Weathering" HOPE VI: The Importance of Evaluating the Population Health Impact of Public Housing Demolition and Displacement. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*. 2011;88(3):417-35.
- ²² Struening E, Wallace R, Moore R. Housing conditions and the quality of children at birth. *Bull N Y Acad Med*. 1990;66(5):463–78.
- ²³ La Plaza Vieja Neighborhood Association. 2011. *La Plaza Vieja Neighborhood: Neighborhood Plan*.
- ²⁴ City of Flagstaff, Flagstaff Metropolitan Planning Organization. 2008. *La Plaza Vieja Walkability Audit*. October 2008.
- ²⁵ Flagstaff Police Department. 2014. Personal communication – Traffic accident data request for La Plaza Vieja neighborhood - 2013.
- ²⁶ Bohn, J. 2013. Uncertainty for Flagstaff trailer park residents facing eviction. Jack Central. November 1, 2013. Available at: <http://jackcentral.com/news/2013/11/uncertainty-for-flagstaff-trailer-park-residents-facing- eviction/>. Accessed June 2014.
- ²⁷ Centers for Disease Control and Prevention. 2012. *Teen Drivers: Fact Sheet*. Accessed June 1, 2014. Available at: http://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html.
- ²⁸ Elvik, R. 2009a. "The non-linearity of risk and the promotion of environmentally sustainable transport." *Accident Analysis and Prevention* 41 (4), 849-855
- ²⁹ Aarts L., and van Schagen, I. 2006. "Driving speed and the risk of road crashes: a review." *Accident Analysis and Prevention* 38 (2), 215-24
- ³⁰ Twomey, J., et al. 1993. "Accidents and Safety Associated with Interchanges." *Transportation Research Record: Journal of the Transportation Research Board*, (1385): 100-105

-
- ³¹ Li, W. 2010. The Culture of Distracted Driving: Evidence from a Public Opinion Survey in Iowa. Masters of Science Thesis, Iowa State University
- ³² Beck KH et al. 2010. Trends in alcohol-related traffic risk behaviors among college students. *Alcohol Clin Exp Res*. doi: [10.1111/j.1530-0277.2010.01232.x](https://doi.org/10.1111/j.1530-0277.2010.01232.x).
- ³³ Vassalo S, Smart D, Sanson A, Harrison W, Harris A, Cockfield S, et al. Risky driving among young Australian drivers: Trends, precursors and correlates. *Accid Anal Prev*. 2007;39(2):444-58
- ³⁴ Treadway, K. 2014. Statistical review and overview of initiatives between FPD and NAU. Flagstaff Police Department.
- ³⁵ Flagstaff Police Department. 2014. Personal communication – data request for service calls to La Plaza Vieja Neighborhood – 2013.
- ³⁶ Bloom, D. 2011. University growth causes tension in surrounding neighborhoods. *Daily Emerald*. July 31, 2011. Available at: <http://dailyemerald.com/2011/07/31/university-growth-causes-tension-in-surrounding-neighborhoods/>. Accessed June 2014.
- ³⁷ Rodriguez, M. 2014. CSURB president proposes plan to end student disturbance. *Coyote Chronicle*. May 10, 2014. Available at: <http://coyotechronicle.net/csusb-president-proposes-plan-to-end-student-disturbance/>. Accessed June 2014.
- ³⁸ Gosselin, N. 2014. Northfield residents complain about student noise, vandalism off-campus. *The Guidon Norwich University*. April 10, 2014. Available at: <http://thenorwichguidon.org/2014/04/northfield-residents-complain-about-student-noise-vandalism-off-campus/>. Accessed June 2014.
- ³⁹ Solomon, B. 2011. Vandals dump trash on streets near University. *The Georgetown Dish*. February 28, 2011. Available at: <http://www.thegeorgetowndish.com/thedish/vandals-dump-trash-streets-near-university>. Accessed June 2014.
- ⁴⁰ Hermann, P. 2013. D.C. universities want some police powers to extend into neighborhoods. *The Washington Post*. September 29, 2013. Available at: http://www.washingtonpost.com/local/dc-universities-want-some-police-powers-to-extend-into-neighborhoods/2013/09/29/1fc26b76-1a5b-11e3-82ef-a059e54c49d0_story.html. Accessed June 2014.
- ⁴¹ White House Task Force to Protect Students From Sexual Assault. 2014. Not Alone. The first report of the White House Task Force to Protect Students From Sexual Assault. Available at: http://www.whitehouse.gov/sites/default/files/docs/report_0.pdf. Accessed June 2014.
- ⁴² McManimom, M. 2013. Flagstaff police underpaid, overworked. *Arizona Daily Sun*. December 24, 2013. Available at: http://azdailysun.com/news/local/flagstaff-police-underpaid-overworked/article_dd8aacc8-6acd-11e3-b948-001a4bcf887a.html. Accessed June 2014.
- ⁴³ La Plaza Vieja Neighborhood Association. 2011. La Plaza Vieja Neighborhood: Neighborhood Plan.
- ⁴⁴ Human Impact Partners. 2012. A Rapid Health Impact Assessment of the City of Los Angeles' Proposed University of Southern California Specific Plan.
- ⁴⁵ Vandegrift D., A. Lockshiss, M. Lahr. 2009. Town vs. Gown: The effects of a college on housing prices and the tax base. Available at: <http://www.policy.rutgers.edu/faculty/lahr/TownVsGown.pdf>
- ⁴⁶ Hubbard P, 2008, "Regulating the social impacts of studentification: a Loughborough case study" *Environment and Planning A* **40**(2) 323 – 341
- ⁴⁷ Schulz A, Zenk S, Israel B, et al. Do neighborhood economic characteristics, racial composition, and residential stability predict perceptions of stress associates with the physical and social environment? Findings from a multilevel analysis in Detroit. *Journal of Urban Health*. 2008; 85(5): 643-660.
- ⁴⁸ Gilman SE, Kawachi I, Fitzmaurice GM, & Bika SL. Socio-economic status, family disruption and residential stability in childhood: relation to onset, recurrence and remission of major depression. *Psychological Medicine*. 2003;33, 1341-55.
- ⁴⁹ Robinson, E. and R. Adams. 2008. Housing stress and the mental health and wellbeing of families. *Australian Family Relationships Clearinghouse*.
- ⁵⁰ Bhatia R, & Guzman, C. The case for housing impacts assessment: The human health and social impacts of inadequate housing and their consideration in CEQA policy and practice. San Francisco Department of Public Health. Program on Health, Equity, and Sustainability. San Francisco: Department of Public Health. 2004.