Climate Resolve

Innovate. Advocate. Achieve. **Together.**

AHSC Example Narrative from Round 5 - Parkview Project

*A strong Community **Climate Resiliency** narrative does the following:*

1. *Identifies at least two impacts of climate change that are of significance, and uses climate projection data to specify the magnitude of those projected impacts.*
2. *Contextualizes the significance of those projections by stating what potential harm would result from failing to adapt to those changes.*
3. *Identifies as many climate adaptation strategies as possible, and with specificity describes how the project implements these strategies above and beyond what is required of them.*
4. *States what the anticipated benefit / impact of these strategies will be.*

This is an excellent narrative, but it should be noted that it could be made stronger by starting each of the two main strategy paragraphs with a sentence summarizing the general approach. For more tips on this section, see our guide. See below notes on why this example narrative received the full 3/3 points.

Community Climate Resiliency

Climate Adaptation

The applicant team identified two primary climate vulnerabilities – extreme heat and significant changes in precipitation. According to Cal-Adapt, extreme heat days are expected to almost triple from 4 to 11 between 2019 to 2099 in the RCP 4.5 scenario, and are expected to more than quintuple from 4 to 23 under the 8.5 scenario. Average temperatures are also expected to rise significantly, increasing by 3.8 degrees Fahrenheit under the RCP 4.5 scenario and increasing 5.3 degrees Fahrenheit under the RCP 8.5 scenario. If left unaddressed, this increase in extreme heat days would expose more residents to risk of heat-related illness, and could possibly increase the associated energy demand to cool down building units. According to Cal-Adapt, the average annual precipitation will go from 16'' to 16.8'' under the RCP 8.5 scenario. The maximum duration of extreme precipitation events will also increase. Under the RCP 4.5 it will increase from 3.1 days to about 3.5 days and will increase to 3.8 days under the RCP 8.5. These extreme precipitation events can cause flooding and spread contaminants, if left unaddressed, as well as be a missed opportunity to capture water and mitigate potential droughts periods.

By using phrases like "almost triple" and "more than quintuple", the applicant shows that they understand the relative magnitude of the anticipated change for both a low- and high-emission scenario.

This shows that the applicant understands the importance of adapting to the increase in extreme heat.

By reporting out that average annual precipitation won't change all that much, but that the precipitation will occur in more extreme events, the applicant presents a well-rounded understanding of the anticipated changes.

The applicant shows that they understand the potential harm of the precipitation changes, and the motivation for adapting to those changes.

In order to address these vulnerabilities related to extreme heat, the AHD will provide 141 trees on all four sides of site, including two rows of trees along the northern property line, with trees of mature size (15' – 25' tall) providing shade and urban heat island reduction. Additionally, 7 trees will be planted in public right of way. The residential building walls all contain R21 insulation to reduce thermal transmission into the units. The project will provide R-30 in the roof and an above grade U-Value of 0.051 for framed construction at walls. The roof materials selected are all Energy Star rated and Cool Roof Rating Council (CRRC) approved materials. These roofing products will have a Solar Reflective Index (SRI) of 29 for the pitched roofs and 99 for the flat roofs. To reduce the impacts on the local electricity grid during extreme heat, the development includes solar photovoltaic panels on all building roofs that will offset approximately 100% of the total site energy consumption (Zero Net Energy). Not only will this lower tenant utility costs, as compared to standard construction practices, it lessens the impacts on the community infrastructure and helps with avoiding brown-outs and rolling blackouts during times of extreme heat. To further reduce the impacts of localized Heat Islands, the pavers that will be specified for the site all have an SRI value of higher than 29 that exceeds the project requirements and contributes to a lower localized climate than traditional darker colored site hardscape materials.

In order to address these vulnerabilities related to extreme precipitation changes, the entire 3.25-acre site has been designed by a licensed civil engineer to meet the Stormwater Pollution Prevention Plan (SWPPP) requirements of Green Point Rated as well as NPDES permits. This approach includes installing infiltration basins to allow any stormwater to percolate back into the existing ground and water table. The project will conserve water through low flow fixtures and a 'capture and reuse' system-- water that falls on site will go into a cistern that will go exclusively towards irrigation. On the exterior of the buildings, non-invasive and native planting and high efficiency irrigation systems will be installed to reduce the overall site water usage by over 60%. Additionally, seven new street trees will be planted on the public right of way. The trees will be selected using the City of LA guide "First Step - Urban Forest Management Plan for the City of Los Angeles," which aims to prioritize trees that maximize essential benefits including shade canopy, pollution mitigation, and ecosystem function.

These measures listed above align with L.A.'s Green New Deal, the 2019 Sustainable City Plan, establishes goals and target metrics relative to climate resiliency such as an increase of tree canopy by 50% in areas of greatest need, and a reduction of hard surfaces that add unnecessary heat to the urban environment. In addition, City of LA's Green New Deal goal to increase stormwater capture to 75,000-acre ft/yr (AFY) by 2021, and to double that to 150,000 AFY by 2035, as well as Reduce potable water use per capita by 22.5% by 2025; 25% by 2035.

This is a lot of trees. It shows that the applicant is really trying to do all that they can on this strategy.

The specificity provided demonstrates that the applicant is going above and beyond what the building code requires of them, and, by doing their homework, it makes it more believable that the project is committed to implementing these strategies.

The applicant shows a sophisticated understanding of this secondary impact of extreme heat.

Installing solar panels on all roofs demonstrates a strong commitment to implementing this strategy, as opposed to only installing the panels on a portion of the roofs.

A clear description of the harm avoided by implementing this adaptation strategy.

By mentioning that they're exceeding the requirements, the applicant demonstrates that they are committed to maximizing the benefits of this strategy.

Consistency with a larger plan ensures that the implementation strategies will work in the larger context.

Describes the strategies' impacts and how they will be implemented.

Indicates that considerations have been made as to which types of trees deliver the most benefits, and that they're implementing the strategy in a thoughtful way.

References specific goals, not just the name of the plan, to demonstrate consistency with the on-site adaptation strategies.

By naming the specific target, the applicant shows that they understand the goal.

*A strong Community **Air Pollution Exposure Mitigation** narrative does the following:*

1. *Uses CalEnviroScreen to identify pollutants of concern, and utilizes supplementary data sources to identify the source of those pollutants.*
2. *With specificity describes the strategies that the project will implement to reduce air pollution exposure. Strategies that reduce the actual amount of pollution and that exceed requirements, such as high-grade air filters, are prioritized by the Strategic Growth Council. Other strategies that encourage behavior change, such as air monitors and advisories on bad air days, can also be used to reduce exposure.*

This narrative could be strengthened by focusing less on improvements to the general area (e.g., the Class III bicycle route) and more on on-site mitigation strategies, like more effective air filtration and design for pollution dispersion. For more tips on this section, see our guide. See below notes on why this example narrative received the full 2/2 points.

Community Air Pollution Exposure Mitigation

Air Pollution Exposure Mitigation Strategies

The project area suffers from poor air quality, ranking in the 97th percentile for pollution burden in CalEnviroScreen 3.0. Specific pollutants of concern are diesel emissions at 42.82 (95th percentile and particulate matter (PM2.5) at a concentration of 12.89 (93rd percentile). The project is also about a mile away from the 10 freeway, which contributes to the high levels of air pollution and to the traffic density (34th percentile). According to 2017 CalTrans data, the 10 freeway has 22,300 vehicles per hour during peak hours.

The site also has a Toxic Releases to Air percentile of 85 for the project area. Although no toxic release sites were identified within 0.5 miles of the project site (using EPA Toxics Release Inventory), it is still subject to major air pollution due to 6 toxic release sites within 2 miles of the project site, according to the EPA. Four of which reported on-site chemical releases in 2017.

To mitigate these air pollution concerns the site has been designed with a series of landscaped open spaces to filter and disperse air pollutants. Additionally, the residential buildings were designed with different massing and gaps between them in order to further increase airflow on the site. All of the residential buildings are provided with continuous exhaust ventilation to ensure proper outside air is being delivered to the residents. All HVAC systems include MERV 13 or higher filtration media to ensure that conditioned air being provided to each home has been filtered for particulates. All residential buildings will be inspected and tested during the construction process to ensure minimal air leakage through ducts and that proper ventilation is being provided at each unit.

Ground floor uses will be residential, but the sleeping areas will be on the second floor to reduce air pollution to sensitive uses. Additionally, new street trees and shrubs along Compton Avenue and 41st Street will filter and disperse pollutants. At the north edge of the site two rows of 15-25' trees will be planted to provide screening between the AHD and the adjacent uses. The project will include 9 short and 89 long-term

Uses an easy-to-understand term to describe the local pollution burden.

Lists the overall pollution burden ranking.

For specific pollutants, lists the concentrations and percentiles. Percentiles are likely more understandable for reviewers than absolute pollutant concentrations. If listing concentrations, the unit of measurement should be noted.

Provides specific data on the source of the pollution burden.

Identifies the distance range for nearby toxic release sites.

Describes the strategy, how it works and its impact.

Demonstrates that the applicant understands how the strategy works. Note that since MERV 13 is now the minimum required by code, MERV 14 or higher is preferred. Specifying the filtration type for all buildings will strengthen an application.

Describes the strategy and how it works.

Describes another air pollution mitigation function of trees; besides the first "filter and disperse" function, the trees also act as a barrier.

bicycle parking spaces to increase active transportation and reduce auto emissions.

Describes how the strategy results in less pollution.

Investments in pedestrian safety will include 12 new crosswalks, 2 curb extensions, 20 new/upgraded curb ramps, and replacement and repair of more than 4,360 feet of safe and accessible walkways. The project will also fund Class III bikeway along 41st Street, Compton Avenue, and Martin Luther King Jr. Boulevard. Some of these improvements, such as crosswalks, curb extensions, and traffic calming measures along the bikeways will help reduce speeding and hard accelerations, thereby reducing air pollution in the project area.

Lists specific strategies, rather than a more generic term like "active transportation improvements", and describes how they will reduce air pollution.

Finally, the upgrade purchase of four battery electric DASH buses will impact the air quality of the project area while improving the reliability of transit. According to the AHSC GHG calculator tool, the new buses will reduce ROG emissions by 519 lbs, PM2.5 emissions by 1,053 pounds, and NOx emissions by 2,130 pounds. It will reduce GHG emissions by over 9,154 MTCO2e over the 12-year life of the buses.

Is specific about how much of the strategy is being implemented.

Provides specific projections to describe the impact of implementing the strategy.

Note: This example narrative and all other previous AHSC Applications are accessible using FAAST.