



## School Nominee Presentation Form

### ELIGIBILITY CERTIFICATIONS

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#### School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades early learning to 12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review. The Department of Defense Education Activity (DoDEA) is not subject to the jurisdiction of OCR. The nominated DoDEA schools, however, are subject to and in compliance with statutory and regulatory requirements to comply with Federal civil rights laws.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

#### U.S. Department of Education Green Ribbon Schools

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Public  Charter  Title I  Magnet  Private  Independent  Rural

Name of Principal: Ms. Stephanie Leach

(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name: Eagle Rock Elementary School

(As it should appear on an award)

Official School Name Mailing Address: 2057 Fair Park Avenue, Los Angeles, CA 90047

(If address is P.O. Box, also include street address.)

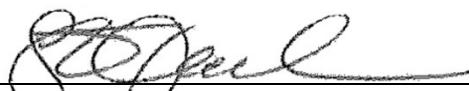
County: Los Angeles State School Code Number \*: 19 64733 6016836

Telephone: 323-254-6851 Fax:

Web site/URL: <http://www.eaglerockelementary.org/> E-mail: [sleach1@lausd.net](mailto:sleach1@lausd.net)

\*Private Schools: If the information requested is not applicable, write N/A in the space

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

  
(Principal's Signature)

Date: 1/24/19



Name of Superintendent: Mr. Austin Beutner  
 (Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Los Angeles Unified School District

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

A handwritten signature in black ink, appearing to read "Austin Beutner".

Date: 1/29/19

(Superintendent's Signature)

#### Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes grades Pre-K-12.
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency: California Department of Education

Name of Nominating Authority: State Superintendent of Public Instruction Tony Thurmond

(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.

A handwritten signature in blue ink, appearing to read "Tony Thurmond".

Date: 2/14/19

(Nominating Authority's Signature)

## SUBMISSION

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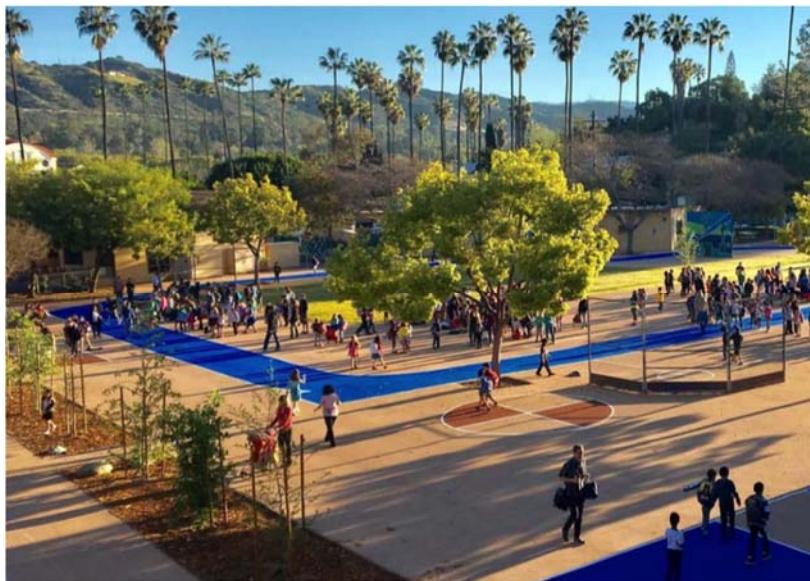
The nomination package, including the signed certifications, narrative summary, documentation of evaluation in the three Pillars, and photos should be submitted online according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509

Expiration Date: March 31, 2021

#### Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.



# Eagle Rock Elementary School

California Disadvantaged School Nominee to  
U.S. Department of Education Green Ribbon Schools

U.S. DEPARTMENT OF EDUCATION



Prepared by  
California Department of Education  
School Facilities and Transportation Services Division  
[Green Ribbon Schools Award Program](#)  
February 2019

## PART II – SUMMARY OF ACHIEVEMENTS

### Eagle Rock Elementary School, Los Angeles, Calif.

#### *An Environmental Manifesto: Mission to Mars*

Eagle Rock Elementary School (ERE) has recently embraced an innovative and new integrating framework known as the ERE Environmental Manifesto. The goal of this framework is to link nearly all subjects and materials to a common theme: Mission to Mars. The prior and current presidential administrations have both expressed deep interest in human space exploration with the intent to send Americans to Mars by the 2030s. It is the kids of today's elementary schools who will be those brave explorers and who need to be trained today for the adventures of a lifetime tomorrow.

ERE's Mission to Mars integrating framework focuses, in fact, on Earth first before preparing for travel to and life on Mars. It is essential that an understanding is garnered about the interconnectedness of Earth's water, energy, and life support systems, as well as technological systems. ERE's framework is then built around teaching students how to treat their home planet as a sustainable "Earth-in-a-box" with its sensitivities, vulnerabilities, strengths, and weaknesses as it integrates across biology, chemistry, ecology, physics, mathematics, and technology. The goal is to carry this knowledge of sustainability into space so that astronauts can use these ideas to be sustained for long periods of time traveling through space at thousands of miles per hour. The idea of an Earth-in-a-box can also be applied on Mars. This can only be done if there exists an integration of key components of health, human interactions, communication, history, art, and culture as visions are exported of how the next planet may be colonized. As such, the Mission to Mars framework is both truly integrating and inspiring, with a real world potential practical application.

At the foundation of the Earth-in-a-box is a massive greening renovation that ERE has undertaken over the course of the past few years. The school has undergone a major transformation from a concrete/asphalt 'launch pad' to a 'garden of Eden.' The design, development, and maintenance of the renovation was done in direct consultation with ecologists, environmental economists, and health professionals to ensure that the final product served the best interests of the environment, the school, and—above all else—the health and well-being of the students.

In 2016, ERE was honored as a Flagship School in the Los Angeles Unified School District (LAUSD) in recognition of the green renovations. The renovations removed 23,789 square feet of asphalt, replacing it with a permeable surface made of decomposed granite; native/drought-tolerant trees and plants; and buffalo grasses, a non-mowing, clumping grass that wears well under constant use. Innovative bioswales landscaped with trees and plantings capture excess rainwater and recharge it into the groundwater aquifer. Green space was also increased by more than 30,000 square feet. This renovation project corresponds with California's planning policies to promote infill development and invest in existing communities; specifically, to protect, preserve, and enhance environmental, agricultural, and recreation resources; and encourage location- and resource-efficient new development. The renovation is also consistent with the City of Los Angeles' "Green Streets" initiative.

ERE has managed to significantly and steadily reduce its energy, gas, and water consumption over the years. This manifests from the major green renovations to small details in changing light bulbs to LED, changing toilets to low-flow, purchasing green cleaning products, purchasing

recycled office supplies, reducing waste, and increasing recycling/reuse. Partnering with Professor Marcella Raney at Occidental College, surface infrared temperature measurements were made before and after the renovation to quantify the temperature difference impacts at multiple times throughout the day and on multiple days. There was a reduction in temperatures for the various surfaces on ERE relative to bare asphalt. ERE's grass surface reflected the highest temperature reduction with a 28–32°C temperature reduction, and there was an additional 8–9°C reduction under shade trees. ERE's bare dirt surface showed a 25–28°C reduction, and the asphalt under shade trees showed a 21–24°C temperature reduction. Moderate-to-vigorous physical activity levels at the individual and population-level during unstructured recess periods has significantly improved. These changes were also related to a decrease in the frequency of antisocial behavior.

ERE is also integrating environmental and sustainability education into the students' instruction. With the development of the garden, ERE students have been able to participate in garden programs, a monarch butterfly way station, and outdoor classrooms. This has led to many opportunities for students to work together and participate in a Green Club, a Garden Club, and a Green Team. These experiences allow the students to move outside the classroom and apply their learning in the real world. Students can learn about harvesting, growing fruits and vegetables, and eating healthy. They are also given an opportunity to work with the community. Environmental and sustainability learning throughout the education experience is leading to documented increases both in learning and wellness. Efforts have been made to improve food nutrition, including reduction of sugar, salt, preservatives, and other processed food items. The garden is a place where students can learn about raising and harvesting their own healthy foods. Students are taught the vital importance of agriculture throughout history in various civilizations while learning and working together with a diverse student body. Kids play in the green spaces, care for the gardens, learn in the butterfly habitats, congregate in the outdoor classroom, and develop gross motor skills balancing on the strategically-placed wood structures, logs, and stumps throughout the campus yard. A garden program is directly integrated into the curriculum, serving over 30 classrooms that can attend garden classes twice weekly for six-week sessions in the edible garden.

ERE is and has historically been a Title I school. As such, funding for green projects has not fallen on the shoulders of the families, rather flowed from idea-inspired competitive grants.

ERE has a Green Team that maintains and improves the greening of the campus and supports teaching elements that utilize the green space. The Green Team is a collection of parent volunteers, teachers, and students with a commitment to maintaining and expanding existing greening projects. The Team designs the green footprint of the schoolyard for the years to come. Over a decade, ERE's green space has drawn in like-minded and dedicated parents, community members, and educators who have been active in many different ways. Dedication to these projects at ERE is ensuring that they remain intact and impressive models of the transformative Power of Greening grants in LAUSD. The Green Team organizes and implements work days to maintain installed green spaces and improve as many areas of the schoolyard as possible.

## PART III – DOCUMENTATION OF STATE EVALUATION OF SCHOOL NOMINEE

### Pillar I: Reduce Environmental Impact and Costs

#### Element IA: Energy

- ERE has identified the major energy use sectors, and has targeted reductions in each of them. The majority of the direct energy use comes from lighting. Lights are being replaced with LEDs and motion sensors that automatically turn off/on with motion. The greening of the school has reduced the need for air conditioning, except during significant heat waves.
- ERE receives its energy and gas usage data from LAUSD in order to assess trends and reductions over time. From 2010 to 2018, gas use was reduced 29%, and electricity use was reduced by 4% from 2012 to 2018.
- In November 2018, ERE received a certificate of sustainability for having 1,000 pounds of carbon offsets from the Personal Carbon Offset Package.
- Over the past 8 years, ERE has reduced its total non-transportation energy use by 6.6%.
- ERE is moving towards installing a solar energy system that will fully meet the school's needs. Currently, solar energy operates ERE's irrigation systems. ERE is also pursuing solar panel acquisitions for teaching as part of the Environmental Manifesto.
- LAUSD electricity is purchased from the Los Angeles Department of Water and Power (LADWP). More than one-third of the energy is obtained from purchased renewable energy across a portfolio of sources, including wind, solar, geothermal, biomass, and small hydroelectric power. Expanding renewable energy is a key component of LADWP's progressive clean energy goals and programs. LADWP has been at the forefront of California utilities in adopting aggressive clean energy goals, and was among the first electric utilities to achieve the first major state legislated target of 20% renewables by 2010. In 2016, LADWP achieved a 29% renewable portfolio, surpassing the state legislated requirement of 25% renewable energy. As of mid-2017, the accelerated renewable energy program achieved approximately 2,550 MW of clean, sustainable energy from wind, solar, and geothermal projects along with previously developed biomass and small hydroelectric power generation. That amount of power provides approximately 7,500 gigawatt-hours—enough clean energy to serve 425 homes for one year and offset nearly 2.9 billion pounds of CO<sub>2</sub> emissions per year.
- With LAUSD's support, ERE participates in the Department of Energy's "Better Buildings Challenge." ERE, along with more than 350 leading private and public sector organizations, has committed to improving the energy efficiency of their portfolio of buildings by at least 20% over a period of 10 years. In the 7 years since the Challenge's inception, partners have saved 380 trillion Btus, or \$3.1 billion.
- In 2016, ERE was honored as a Flagship School for the entire LAUSD in recognition of the green renovations. The renovations removed 23,789 square feet of asphalt, replacing it with a permeable surface made of decomposed granite, native/drought-tolerant trees and plants, and buffalo grasses, a non-mowing, clumping grass that wears well under constant use. Innovative bioswales landscaped with trees and plantings capture excess rainwater and recharge it into the groundwater aquifer. Green space was also increased by more than 30,000 square feet. This renovation project corresponds with California's planning policies to promote infill development and invest in existing communities, specifically to protect, preserve, and enhance environmental, agricultural and recreation resources; and encourage location and resource efficient new development. The renovation is also consistent with the City of Los Angeles's "Green Streets" initiative.

- ERE undertook a major green renovation to reduce the heat island effect, replacing asphalt with green surfaces. Where asphalt remained, ERE painted over dark surfaces with beige reflective paint. Additionally, dozens of new shade trees were planted. Partnering with Occidental College (Professor Marcella Raney), surface infrared temperature measurements were made before and after the renovation to quantify the temperature difference impacts at multiple times throughout the day and on multiple days. There was a reduction in temperatures for the various surfaces on ERE relative to bare asphalt. ERE's grass surface reflected the highest temperature reduction with a 28-32°C temperature reduction, and there was an additional 8-9°C reduction under shade trees. ERE's bare dirt surface showed a 25-28°C reduction, and the asphalt under shade trees showed a 21-24°C temperature reduction.
- At ERE, lighting and the school's air conditioning units consume most of the site's energy. To reduce energy use, ERE has been using LEDs for lighting. Further, motion sensors are installed to turn lights on/off when rooms are occupied. During operating hours, the thermostat is set to 70-72°F and then turned off after school is let out and on the weekends. ERE participates in the Heroes for Zero challenge, which involves student teams in making their schools zero net energy ready by reducing energy consumption, maximizing energy efficiency, and educating fellow students and staff.

#### Element IB: Water and Grounds

- ERE's indoor and outdoor water use is metered together. There has been a 13% reduction in ERE's water consumption from the baseline year of 2010 to 2017.
- There has been an overall decrease in water usage at ERE. Most of the new vegetation is native and/or low-water use with roots designed to extend deep into the soil. The school's bioswales were designed to capture rainwater runoff for groundwater recharge instead of diversion to storm drains, thereby raising the groundwater table. As such, there has been no need to have a new irrigation system installed for all the new trees. Troughs were designed and built to collect surface water runoff, which percolates into the soil troughs, supplying the trees with sufficient water to last each dry season. The troughs are also designed to capture leaf litter and mulching to retain nutrients and eliminate the need for chemical fertilizers.
- A portion of ERE's campus is covered with a permeable surface made of decomposed granite. The site houses innovative bioswales, native/drought-tolerant trees and plants, and buffalo grasses. The bioswales capture excess rainwater and recharge it into the groundwater aquifer. In so doing, none of the trees require irrigation, as they are able to tap into a raised groundwater aquifer. The grasses are also relatively deeper rooted and are irrigated on solar powered systems directly connected to soil moisture sensors that modulate the amount of irrigation required. ERE is working on acquiring rainwater barrels with rain gutter redesign to capture even more rainwater.
- Approximately 25-40% of ERE's school grounds is devoted to ecologically beneficial uses. The site has rain gardens, wildlife, native plant habitats, garden boxes, and outdoor classrooms. One notable wildlife/plant contribution is that ERE has been a major leader in establishing monarch butterfly habitat. ERE is currently undergoing the process to become certified as an established "way-station" for monarch butterflies. The process has involved creating a thriving and large area milkweed habitat in conjunction with nectar flowers that attract butterflies but not bees for child safety.
- In partnering with Professor Marcella Raney at Occidental College, surface infrared temperature measurements were taken before and after the school's 2016 renovation to quantify the temperature difference impacts at multiple times throughout the day and on

multiple days. The green renovations have significantly improved wellness and environmental health. The data collected by Occidental College also found that moderate-to-vigorous physical activity levels at the individual and population-level during unstructured recess periods significantly improved. These changes were found to be more significant for girls and for older students and were also related to a decrease in the frequency of antisocial behavior. All positive changes were tracked and maintained 16 months post-renovation. These findings have been presented at multiple professional conferences and have been written up for publication in the scientific literature.

#### Element IC: Waste

- ERE reports a 38% recycling rate with 60% of solid waste being diverted from landfilling or incinerating due to recycling.
- In ERE's compost system, 100% of landscape waste is recycled on-site. Tree wells are designed to retain dead plant material. Additional mulch is supplemented with the district's mulching program. Also, composting is done twice a week for educational purposes with a single bin provided through EnrichLA.
- Waste disposal and recycling are tracked via LAUSD's Facilities Manager. The number of bins and collection frequency are based on demand and set by the Facilities Manager. LAUSD identifies the amount of waste disposed by the number of times each type of bin on the site is emptied.
- There are several ways ERE properly disposes of the hazardous materials that are used on its site. ERE regularly and systematically controls for and collects electronic disposal items (e-waste), such as desktop computers, printers, toner cartridges, and television sets. Separating disposal procedures for recycling are implemented depending on the type of material being recycled. This is run by ERE's Technology Committee, which sees the full/partial life cycle of e-waste from procurement to disposal/recycling. ERE also has local e-waste collection centers in Glendale and Pasadena.
- ERE has an environmentally preferable purchasing policy and procedures in place when purchasing and using office and classroom cleaning supplies. The school tracks its green purchases and trains its staff on how to identify and use its green products. Data shows 25% of ERE's total office/classroom paper content is postconsumer material, fiber from forests certified as responsibly managed, and/or chlorine-free.

#### Element ID: Alternative Transportation

- According to an ERE survey, the majority of respondents (41%) reported carpooling with 2 or more students in the car as the form of alternative transportation used to get to and from school. The next largest group of respondents (31%) reported walking. Per the data collected, 7% of respondents used other public transportation and 5% of respondents reported rolling (i.e., bike, scooter, skateboard) and school bus as the modes of transportation used to get to school.
- At ERE, carpool parking signs and electric vehicle charging stations have been installed to encourage carpooling and the use of electric vehicles.
- A well-publicized no-idling policy has been implemented.
- ERE has implemented a "walking bus" program in which adults accompany groups of students as they walk to school along a given route. There are designated safe pedestrian routes to school. For those students who wish to roll to school (and to encourage such

behavior), ERE has provided secure storage for human-powered modes of transportation to school.

- In implementing a safe routes program, ERE participates in the Annual Walk to School Day, an event that has approximately 200 students participating each year. The routes are designated across four locations with a walk captain to organize and educate on the routes. The locations are selected based on prominent landmarks near or at the four corners of the school's districts. The routes are mapped by regular walkers who have scoped the safest pathways. Partners include the Councilmember's office, which often contributes healthy snacks; school police who monitor safety; and local businesses that offer discounts and giveaways for participation. This program is currently being extended to a weekly program.
- In order to reduce the environmental impact of ERE's and LAUSD's fleet, LAUSD has made an ongoing effort to procure buses that use cleaner burning fuel. These efforts are supported by Measures Y and Q and grants from the South Coast Air Quality Management District (SCAQMD). LAUSD has been able to replace more than 70% of its diesel engine school buses with cleaner emission vehicles that use compressed natural gas (CNG). These CNG vehicles produce less urban pollution and greenhouse gases than diesel buses and reduce dependence on foreign oil while providing lower fuel costs. With 600 CNG school buses, LAUSD operates the largest compressed natural gas school bus fleet in California and also houses several CNG fueling stations. Seven buses currently service ERE: 3 CNG, 1 propane, 2 post-treated diesel (exhaust to CA ARB requirements), and 1 gasoline.
- LAUSD also operates alternative-fuel buses powered with gasoline and propane. LAUSD has in its fleet 100 ultra-low emission vehicles (ULEV) and 268 propane-powered school buses.
- Bio-diesel fuel is a cleaner burning alternative fuel produced from domestic, renewable resources, such as vegetable oils and animal fats. All remaining LAUSD school buses with diesel engines operate on low-sulfur bio-diesel fuel. Compared to diesel, the use of bio-diesel creates a considerable reduction in particulate matter (PM) and Carbon dioxide (CO<sub>2</sub>) emissions. Additionally, these buses are equipped with special exhaust traps/filters that further reduce pollutants. The introduction of a bio-diesel fuel blend into LAUSD's fleet provides a unique opportunity to leverage green technology that requires limited capital investment.

## Pillar II: Improve the Health and Wellness of Students and Staff

### Element IIA: Environmental Health

- An Integrated Pest Management (IPM) program has been established at ERE. IPM policy and procedures are outlined in an IPM handbook stored on site. This handbook also covers the California Healthy Schools Act, the approved product list, required forms, and the site activity log. In line with the IPM program, ERE's cafeterias are inspected monthly by technicians. Notice of any application is posted and sent to parents 72 hours in advance, and all applications are recorded, including any product or application that is Healthy Schools Act exempt. Application records are kept for four years. Use of chemical pesticide is extremely rare in LAUSD. The District's IPM Program received two Innovator Awards from the California Department of Pesticide Regulation for implementing practices such as using heat to eradicate termites and using beneficial insects to prevent pest concerns.
- ERE has a Chemical Safety Coordinator (CSC) who is responsible for implementing the District's Hazard Communication and Chemical Hygiene standards when minimizing exposure to hazardous contaminants. The CSC is tasked with conducting monthly inspections, maintaining inventory labeling and storage, conducting chemical hygiene

training for science teachers and hazard communications training of all staff. All science teachers follow the guidelines in the Science Safety Handbook for California Public Schools. ERE is tobacco and aerosol free, and has an asbestos management plan. All maintenance staff and plant managers receive asbestos awareness training. ERE also receives asbestos surveillance every six months and is fully inspected every three years. Elemental mercury has been removed and is prohibited.

- Classroom acoustics were tested with professional measurements to be less than 45 dBA. Acoustics were tested at the highest point - during morning transition time while fans are on. An acoustic background of less than 45 dBA was maintained.
- Owing particularly to the Southern California climate, all classrooms have excellent daylighting and high-quality electrical light when needed. There is generally year-round low relative humidity (i.e., within the ASHRAE 30-60% range), excellent outdoor air exchange rates (i.e., exceeding California Mechanical Code Table 402.1), and wonderful views of trees and nature.
- ERE maintains and cleans its ventilation system once every month. All air filters are changed, coils are cleaned, and vents are washed every 6 months.
- In preventing exposure to asthma triggers, LAUSD has implemented the California Department of Public Health's "Healthy Cleaning & Asthma-Safer Schools: A How to Guide." No asthma-trigger chemicals are used at ERE. During high-wind warnings, LAUSD sends out advisory emails, and the ERE principal notifies all families.
- ERE's facilities are inspected every day to control moisture from leaks, condensation, and excess. If there are any signs of excess moisture, inspection and remediation is scheduled immediately. Also, if any classroom reports an anomalous rise in illness, the classroom/building is immediately inspected. These strict protocols, in conjunction with a dry climate, have resulted in zero cases of mold infestations in the history of the school.
- All pipes, soils, paint, and other materials are inspected in order to ensure buildings and site soils are lead-safe. Procedures for inspecting pipes include recording notes into a flushing log whereby all pipes are run for 10-20 minutes then sampled and analyzed for lead. ERE is in the process of installing filtered drinking fountains on campus.
- There are no health-risk chemicals used at ERE. All cleaning products are certified by LAUSD's Office of Environmental Health and Safety and applied only by trained staff. Approximately 25% of LAUSD's cleaning products are GS-37 Green Seal (Industrial and Institutional). ERE uses Green Seal certification to verify products. Green Seal certified products have met the same performance and quality requirements expected from traditional, non-green counterparts due to the performance criteria in each of the Green Seal standards.
- In order to protect indoor air quality, ERE staff has reviewed the Indoor Air Quality (IAQ) Tools for Schools Action Kit, specifically the 11 checklists designed by the EPA to target teachers, administrative staff, health officials/school nurses, school officials, building maintenance, food service, waste management, ventilation, renovation and repairs, walk-through inspections, and pest management.
- There are several steps that ERE has taken to protect outdoor environmental quality. ERE's parent drop-off zone is facilitated through the Safety Valet, which allows parents to drop off kids safely with designated liaisons who will lead them from their cars to classrooms. This eliminates vehicle idling. The entire front of the school is lined with trees, providing a natural barrier between the school and vehicles. Dozens of additional trees have been planted throughout the campus to provide shade and an aesthetic view on campus.

## Element IIB: Nutrition and Fitness

- Efforts have been made to improve food nutrition, including reduction of sugar, salt, preservatives, and other processed food items. LAUSD foods are sourced locally. ERE has participated in the Farm to School program, Harvest of the Month. Multiple classes and outreach activities are provided and promoted on nutrition education.
- A garden program is directly integrated into the curriculum, serving over 30 classrooms that attend garden classes two times a week for 6-week sessions in the edible garden led and supported by EnrichLA. Teachers use the garden to support their lessons so that students connect more deeply with content across the curriculum in math, science, health, and the arts. ERE is also integrating the garden curriculum into its approach to the California Next Generation Science Standards. Through the garden, even the youngest students are familiar with complex scientific concepts like osmosis and the carbon and nitrogen cycles. They gain hands-on experience studying everything from the structures of plants to the life cycles of butterflies and the importance of bees. Students are taught the vital importance of agriculture throughout history in various civilizations. Working in the garden program and learning through trial and error gives them a real sense of the challenges other cultures have faced in providing food for their people. Lastly, the ERE gardens truly serve as common ground for where the diverse student body learns and works together. Also, with over 50% of ERE pupils qualifying for assisted lunch, the garden provides an important introduction to health and nutrition, as well as access to fresh fruits and vegetables that may not otherwise be available to all ERE students. The afterschool Garden Club, which is sponsored by Sprouts market, expands the interactions with the garden facilities once per week and provides garden food tastings upon parent's written consent.
- In addition to school-supervised physical education, ERE offers many in-class movement activities, focused physical subject activities (e.g., theater and dance), and after school clubs (e.g., yoga and dance). Health measures are integrated into state assessments that measure flexibility and endurance. ERE holds annual Fun Run events to promote healthy lifestyles. This event is being updated to a full Fitness Fair that will cover other fitness topics and activities beyond just running.
- ERE has a schoolwide Positive Behavior Team that meets quarterly to address mental health, bullying, behavior, special needs, new pedagogical approaches, and theoretical advances in wellness. Green renovations have significantly improved wellness and environmental health, as described in Element IB. Wellness policies and practices extend directly into afterschool programs/activities, which take advantage of the green spaces with an even more extended focus for different themes. There are different afterschool "clubs" with focus areas that apply to elements of wellness, including yoga, dance, and philosophy. ERE students also participate in a solar awareness and sunscreen program run by the University of Southern California. Pre- and post-program data collected found that the effectiveness of the program persisted consistently throughout the time the students were in the program (i.e., until they graduated).
- Before school, during recess and lunch, and after school, ERE kids have a large number of outdoor education, exercise, and recreation opportunities available outside of formal physical education. Kids play in the green spaces, care for the gardens, learn in the butterfly habitats, congregate in the outdoor classroom, and develop gross motor skills and balance on strategically-placed wood structures, logs, and stumps throughout the campus yard.
- ERE's principal makes a concerted effort to maintain high staff morale and wellness. Staff regularly forms walking groups for exercise breaks around the campus and neighborhood. They are encouraged to participate in and lead the health/nutrition workshops. The staff

lounge was recently renovated to increase social interactions. The principal also holds an annual staff appreciation week.

- Multiple partnerships have been fostered to improve health and wellness, particularly with local universities such as Occidental College, the University of Southern California, and Pasadena Community College. ERE partners with an organization called Christian Assembly, which provides mentoring for at-risk children through a program called KidsHope. This program provides students with positive adult relationships outside of the teacher, which is particularly beneficial for some families that are challenged to provide such relationships.
- The 8 components of the Coordinated School Health approach in the Health Framework for California Public Schools are used to address and track overall school health at ERE:
  - 1) Health Education: multiple workshops and educational activities are provided for healthy eating and nutrition education. ERE strives to maintain a Safe School Environment and participates in programs such as the Kindness Campaigns, which focus on elements of kindness and good-will as positive messaging in lieu of anti-bullying messaging. The staff have been trained on Restorative Justice and have been implementing the principles. ERE is an alcohol, tobacco, and drug-free environment. Multiple mental health programs are in place, which include KidsHope, the Foster Youth Program, and Asian Pacific Counseling, which provides much appreciated peer counseling and mental health support. The Positive Behavior Support Team collects data on behavior trends and hones in on specific common issues to remedy common causes and themes. Also, a mindfulness coach works with ERE every week, and a positive discipline assembly is held every week for each grade level.
  - 2) Physical Education: The green renovations have significantly improved wellness and environmental health. Moderate-to-vigorous physical activity levels at the individual and population-level during unstructured recess periods has significantly improved. These changes were also related to a decrease in the frequency of antisocial behavior.
  - 3) Parent/Community Involvement: A wide array of parent/community involvement programs maintain a strong connection between the school and the community. For instance, ERE has a Green Team that maintains and improves the greening of the campus and supports teaching elements that utilize the green space. The Green Team is a collection of parent volunteers, teachers, and students with a commitment to maintaining and expanding existing greening projects. The Team designs the green footprint of the schoolyard for the years to come. Over a decade, ERE's green space has drawn in like-minded and dedicated parents, community members, and educators who have been active in many different ways. Dedication to these projects at ERE is ensuring that they remain intact and impressive models of the transformative Power of Greening grants in LAUSD. The Green Team organizes and implements work days to maintain installed green spaces and improve as many areas of the schoolyard as possible.
  - 4) Nutrition Services: multiple workshops and educational activities are provided for healthy eating and nutrition education.
  - 5) Health Services: ERE students have access to a school psychologist and a counselor daily. KidsHope (which also provides nurse services) is available four days per week; the Foster Youth Program, Asian Pacific Counseling, and the school nurse are available every week. ERE supplies a special needs provider when needed.
  - 6) Psychological & Counseling Services: KidsHope, the Foster Youth Program, and Asian Pacific Counseling are ERE programs that offer students with peer counseling and mental health support. ERE's Positive Behavior Support Team collects data on behavior

trends and hones in on specific common issues to remedy common causes and themes. A mindfulness coach also works with ERE every week, and a positive behavior interventions assembly is held every week for each grade level.

- 7) Safe & Healthy School Environment: Kindness Campaigns are held each year, which focus on elements of kindness and good-will as positive messaging in lieu of anti-bullying messaging. ERE staff has been trained on Restorative Justice and has been implementing the principles.
- 8) Staff Health Promotion: Staff regularly forms walking groups for exercise breaks around the campus and neighborhood. They also participate in and lead health/nutrition workshops. The staff lounge was recently renovated to increase social interactions. The principal holds annual staff appreciation weeks.

### Pillar III: Provide Effective Environmental and Sustainability Education

#### Element IIIA: Interdisciplinary Learning

- ERE's written definition of environmental literacy and learning outcomes focuses on preparing students to become responsible stewards of Earth by understanding how human activity has impacted the health of the planet. "ERE's mission is focused on creating activity-based learning opportunities that empower students to explore their environment and undertake environmental challenges that require problem-solving and critical thinking skills that will build on students' knowledge, attitudes, and values about our world." The definition hopes to instill in ERE students "an appreciation for diversity and adaptability" in order to create a "sustainable and collective change for [the] environment." To promote environmental education and sustainability, messages are included in the weekly notifications informing families of upcoming environmental and sustainability lessons and activities of the coming week. ERE supports a Green Team made up of parents, volunteers, teachers and students who are committed to maintaining and expanding existing greening projects. Environmental education is used and applied in activities and events sponsored by the Green Team. Over the past ten years, ERE's green space has drawn in like-minded and dedicated parents, community members, and educators who have been active in many different ways. Dedication to these projects at ERE is ensuring that they remain intact and impressive models of the transformative power of greening grants in LAUSD. The Green Team organizes and implements work days to maintain installed green spaces and improve as many areas of the schoolyard as possible. The team has also worked to help establish new trees.
- ERE has environmental/sustainability literacy requirements that address nine areas covering Earth's systems, the environment, and human impact. These areas expand students' knowledge about the Earth and also have them engaging in problem solving and critical thinking skills in meeting these requirements. These areas address: Earth's systems; Earth and human activity; biological evolution: unity and diversity; ecosystems: interactions, energy, and dynamics; interdependent relationships in ecosystems: animals, plants, and their environment; interdependent relationships in ecosystems: environmental impacts on organisms; inheritance and variation of traits: life cycles and traits; energy; and matter and energy in organisms and ecosystems.
- ERE's environmental/sustainability literacy concepts are integrated across the curriculum in Science (CA NGSS). ERE's Mission to Mars integrating framework focuses on the interconnectedness of Earth's water, energy, and life support systems, as well as technological systems. Students learn about treating their home planet as a sustainable 'Earth-in-a-box' while being educated about its sensitivities, vulnerabilities, strengths, and

weaknesses. This education is integrated across biology, chemistry, ecology, physics, mathematics, and technology.

- An environmental/sustainability elective course is offered at ERE through the after-school clubs program, which includes a Green Club. This club extends many of the environmental/sustainability concepts learned in class to the school green grounds. Activities include plant and wildlife monitoring and measurement, sampling of soil, water, and air, and inspection/maintenance on the various green projects around the school. A garden program is directly integrated into the curriculum, serving over 30 classrooms that attend garden classes twice weekly for 6-week sessions in the edible garden led by EnrichLA. Teachers use the garden to support their lessons, so that students connect more deeply with content across the curriculum in math, science, health and the arts.
- The afterschool Garden Club, which is sponsored by Sprouts market, expands the interactions with the garden facilities once per week. Environmental and sustainability learning and achievement is assessed primarily through standard grading procedures as the CA NGSS material is learned. Additional assessments are given through focused environmental/science projects with recognition given in the category of the Environment. All teachers and staff participate in professional development on environmental and sustainability education. These include CA NGSS lesson planning and trainings that extend beyond the standards into how to optimally use the green yard, outdoor classroom, and Earth-in-a-box.
- Teachers and staff attend the National Science Teachers Association (NSTA) conference annually, which includes focused breakouts on environmental and sustainability science teaching. ERE teachers attend STEAM symposiums that include topics on how to integrate technology into environmental education. The California Science Teachers Association (CSTA) organizes symposia that include a multitude of environmental trainings and seminars, including many climate scientists from NASA's Jet Propulsion Laboratory. Finally, for each environmental grant that ERE applies for, professional development is included as part of the budget, reflecting a commitment to fully optimize the value of any school improvement.
- ERE is fortunate to be in close proximity to a large number of outdoor programs for environmental education, and multiple field trips per year by different classes are taken to these programs. Students can participate in the Sepulveda Basin Environmental Education Program and observe wildlife with binoculars, test a lake's water quality, and learn about native plants. Students are also given opportunities to go to the Catalina Island Marine Institute where they can increase science literacy, have hands-on experiential science using state of the art labs and equipment, and engage in field activities. Other field trips take the students to the Natural History Museum, Underwood Family Farms, and the Los Angeles Zoo and Botanical Gardens.
- A number of service learning projects incorporate environmental topics at ERE. These include neighborhood clean-ups, community e-waste round ups, and clothing/toy donations. ERE works with the local Councilmember's office on environmental activities as well. As part of the educational program, one of the activities includes identifying unused/abandoned urban lots and reimagining and designing them as 'pocket parks' for new green spaces.
- The foundation of ERE's environmental education is in the use of the campus green renovation to foster ecological literacy in a hands-on manner. These include the garden learning, monarch butterfly habitats, outdoor classrooms, Earth-in-a-box, class-assigned environmental stewardship for different parts of the campus, the Garden Club, and the Green Club. ERE is currently undergoing the process to become certified as an established "way-station" for monarch butterflies. The process has involved creating a thriving and large

area milkweed habitat in conjunction with nectar flowers that attract butterflies but not bees for child safety.

#### Element IIIB: STEM Content, Knowledge, and Skills

- ERE uses a systems approach to science and learning that focuses on STEM learning ecologies beginning with the physical context of the school yard. In the lower grades, students investigate the life cycles of butterflies while also learning the biotic and abiotic factors needed for their survival. This includes learning about their relationship to different plants within the school's butterfly garden and the needs of those plants. Many opportunities to learn about biodiversity and life cycles in different contexts are provided throughout the year including science field trips and the implementation of curriculum, including Mystery Science, FOSS, and teacher-created units of learning. Students are also able to communicate their learning through technological means including the use of the SKIES application. In the upper grades, students begin to investigate complex environmental issues such as the urban island heat (UHI) effect by measuring the temperatures of the man-made surfaces of the school, such as asphalt and buildings, and comparing it to greener surfaces, including the grass and trees. They begin to collect evidence of the ways in which UHI affects dense urban areas such as Los Angeles. Students conclude that the school has created a viable solution to this problem by providing more vegetation and painting black top surfaces in a lighter color to counteract this environmental issue. They also engineer similar solutions around their neighborhood by designing pocket parks in vacant and irregular shaped lots and planting native seeds around these areas. Using Eagle Rock's green school yard as a laboratory for learning promotes sustainability and environmental awareness by studying the effects of how greener permeable surfaces in the yard restores groundwater systems and prevents storm water runoff that ultimately affects the health of our oceans. Additionally, students in all grade levels "adopt" a variety of plants and trees within the school yard and commit to their care by learning about their needs, measuring growth, providing appropriate amounts of water, and removing litter and invasive plants that threaten their survival.
- ERE has recently embraced an innovative, new integrating framework—the ERE 'Environmental Manifesto'—linking nearly all subjects and materials to a common theme: Mission to Mars. ERE's Mission to Mars integrating framework focuses on Earth first before preparing for travel to and life on Mars. It is essential to understand the interconnectedness of Earth's water, energy, and life support systems, as well as technological systems in order to use this information to sustain astronauts for long periods of time traveling through space at thousands of miles per hour, as well as maintaining that Earth-in-a-box on Mars. As such, the Mission to Mars framework is both truly integrating and inspiring, with a real world potential practical application.
- It is widely acknowledged that green technologies and careers will be a major industry and source of employment in the near future. In a recent faculty survey, the majority of teachers at ERE felt environmental science was important for preparation for the future and that understanding and learning about green technologies and career opportunities will empower students to be environmentally literate citizens who will take action and provide solutions to environmental issues.
- ERE has built various community partnerships, including Occidental College, to engage students in learning about our environment. This year, several professors in environmental science fields will co-create lessons with teachers and speak to students about green careers. Additionally, ERE science lead teachers are holding several professional development meetings throughout the year to support teachers in creating CA NGSS-

aligned lessons that also incorporate activities and mini-lessons on green technologies and careers. Other opportunities for learning about green technologies and careers exist in the afterschool programs. For example, in the technology club, the teacher salvages old computer towers bound for e-waste and repurposes them to teach about computer anatomy. Later, the students learn about how nonfunctional or dated computer parts often wind up in landfills. The class then thinks of solutions to address this problem. Finally, ERE is planning on hosting an Earth Day Expo that will educate students and family members on protecting Earth's natural resources.

#### Element IIIC: Civic Knowledge and Skills

- A number of service learning projects incorporate environmental topics at ERE. These include neighborhood clean-ups, community e-waste round ups, clothing/toy donations, and an Energy Contest. ERE works with the local Councilmember's office on environmental activities as well. As part of the educational program, one of the activities includes identifying unused/abandoned urban lots and reimagining and designing them as 'pocket parks' for new green spaces.
- ERE 6<sup>th</sup> graders hold a "job" to help Kindergarteners during playtime. The job entails modeling good play and walking around the green areas to demonstrate respect and excitement, and general civic skills. Government is taught across all grade levels hierarchically, covering local/community, city, state, national, and international structures. Environmentalism/sustainability is incorporated across all grades in the teaching of government. It is important for students to understand that all steps of governance are needed for change.
- The foundation of ERE's environmental education is in the use of the campus green renovation to foster ecological literacy in a hands-on manner. These include the garden learning (TK-3), monarch butterfly habitats (TK-K), outdoor classrooms (1-6), Earth-in-a-box (K-6), class-assigned environmental stewardship for different parts of the campus (TK-6), the Garden Club (1-6), and the Green Club (1-6). ERE is currently undergoing the process to become certified as an established "way-station" for monarch butterflies. The process has involved creating a thriving and large area milkweed habitat in conjunction with nectar flowers—that attract butterflies but not bees (child safety).
- Though special recognition is given to California's annual celebration of Living Schoolyard Month (ACR-128) in May, ERE has essentially instituted ACR-128 every month and for all of ERE's green schoolyard activities. In ACR-128, the language points to an increase in green space; ERE uses this language to identify plans for increasing the sustainability of the school even further for the coming year.
- Multiple partnerships have been fostered with Occidental College, USC, Caltech, Pasadena Community College, NASA's Jet Propulsion Laboratory, Christian Assembly, EnrichLA, and many others.
  - ERE partners with an organization called Christian Assembly, which provides mentoring for at-risk children through a program called KidsHope. They meet with the kids weekly during the entire duration at ERE. This program provides positive adult relationships outside of the teacher, which is particularly beneficial for some families that are challenged to provide this. 80-90 ERE children participate in this program.
  - Partnering with Occidental College, ERE has studied the heat island effect with Professor Marcella Raney, as described above.

- In partnering with NASA's Jet Propulsion Laboratory, ERE has recently embraced an innovative, new integrating framework—the ERE 'Environmental Manifesto'—linking nearly all subjects and materials to a common theme: Mission to Mars.
- The ERE green program has made major evolutionary progress over time. These include the steady improvement in resource use as well as the major green renovation in recent years. While the predominant focus of ERE is on the children at ERE, the school also maintains strong ties to the feeder middle and high schools. Older kids regularly return to ERE for both teaching and learning opportunities.