

Post Occupancy Report

Discovery Elementary School, Arlington Public Schools



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Executive Summary

A post-occupancy survey is a process by which the results of a project are compared against the project's original goals. There are many metrics that are analyzed: budgetary performance, schedule, ongoing operating costs, and the satisfaction of the building's users, operators, and planners. To gauge satisfaction, surveys were conducted with Instructional Staff, Facility and Operations Staff, and the Building Level Planning Committee. The detailed reports from those surveys can be found in the appendix of this report. Arlington Public Schools performs post-occupancy surveys and reports on all its major capital projects.

There are many key project successes worth highlighting:

- Overall BLPC and Staff satisfaction with the building and grounds.
- The building itself is successfully used as a teaching tool.
- Energy performance exceeds original (and lofty) expectations.
- Proper budget management preserved significant funding for future capital projects.
- The school has been nationally recognized for both sustainability and for its innovative teaching and learning environment.

The post-occupancy assessment also identified opportunities for improvement on future projects:

- More areas for student display and pinup in the corridors and public spaces.
- Furniture selections that are better fine-tuned to different ages.
- Amount, configuration and location of classroom storage (storage at student desks, or not?)
- Better acoustical separation between common areas and classrooms.
- Better contractor performance to ensure that all parts of the building are fully functional on opening day.

Every project is an opportunity to improve, but by most metrics, Discovery Elementary should be considered a significant success for Arlington Public Schools. It opened on time, was delivered under budget, is generally beloved by students and staff, promotes inquiry based learning, and achieved net zero energy status with no increase to the original budget.

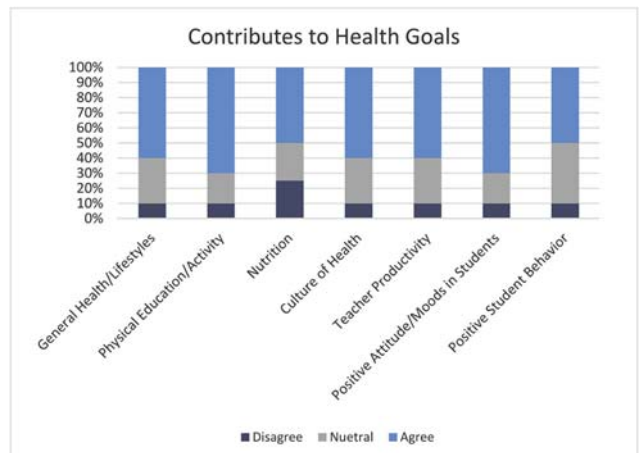
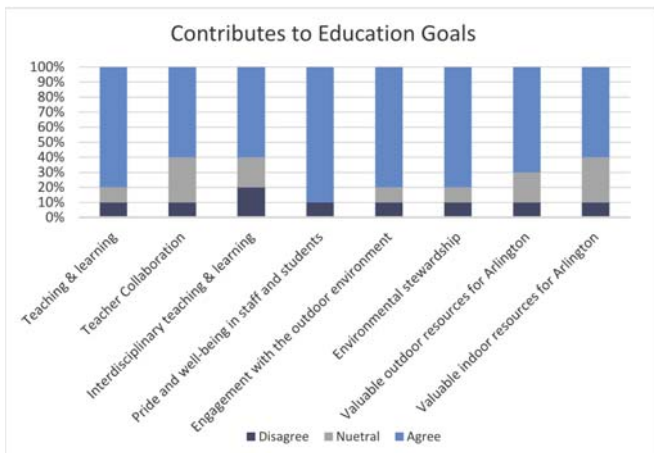
Occupant Survey

BLPC Survey Results

The Building Level Planning Committee was surveyed about the design process of Discovery Elementary School. Overall, the committee members were satisfied with the materials presented, their level of participation in the process, and the design of the school.

Everyone surveyed felt that the spaces turned out as envisioned and eighty percent agreed that the building came out as expected. One committee member expressed disappointment that artificial play fields were installed over the objection of the BLPC. Although everyone agreed that the traffic flow met the expectations of the design, there is still some concern about the two lane drop off and some frustration with the volume of traffic.

Ninety percent of the respondents are satisfied with the building layout and characteristics. The majority felt that the project is a valuable resource for the community, and contributes to teaching, learning, and environmental stewardship. They also agreed that the school contributed to productivity in teachers and to the general health, positive attitude, and behavior of the students.



BLPC MEMBERS



RENDERING FROM APRIL 24, 2013 BLPC PRESENTATION

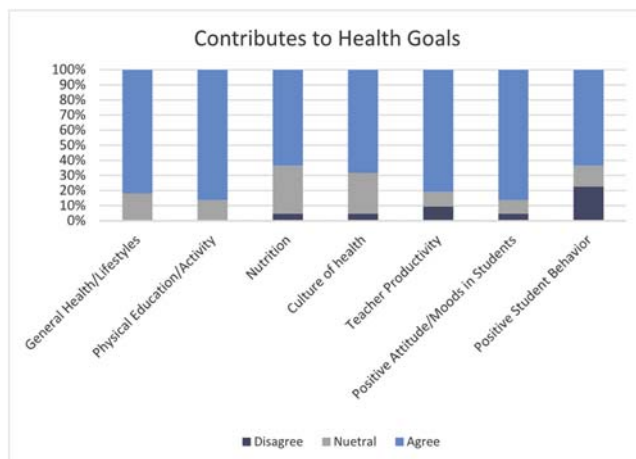
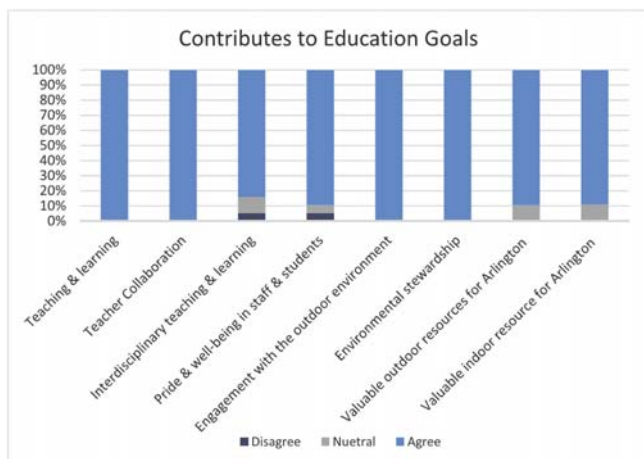
Instructional Staff Survey Results

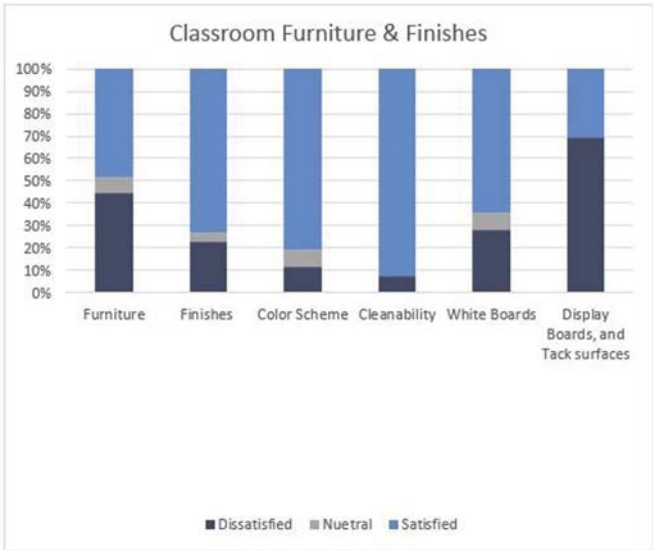
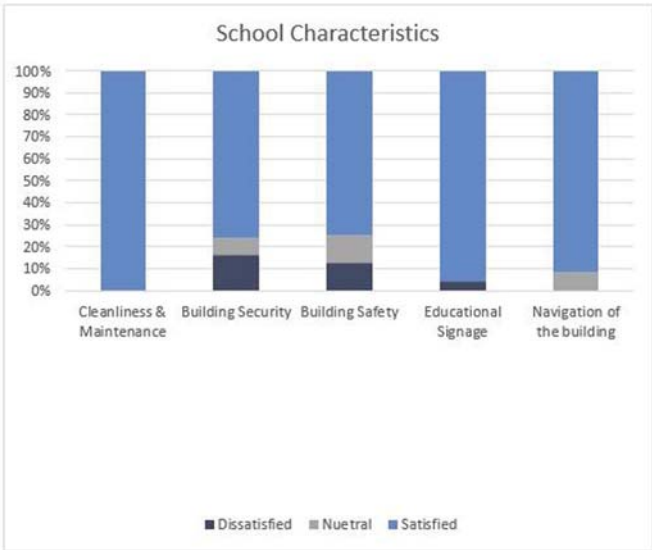
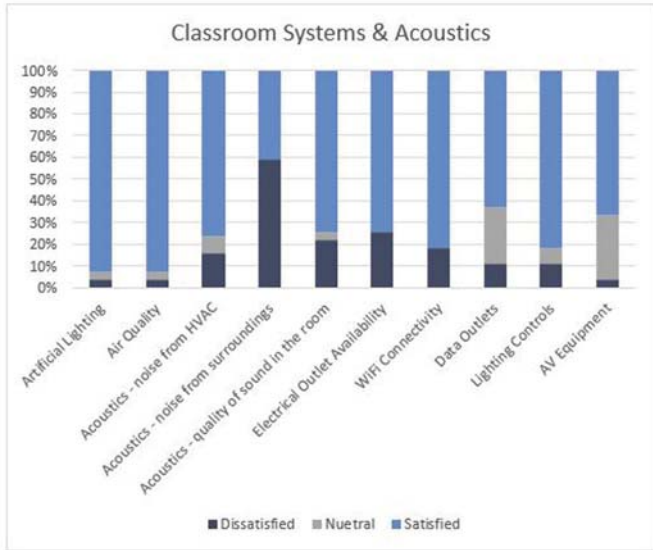
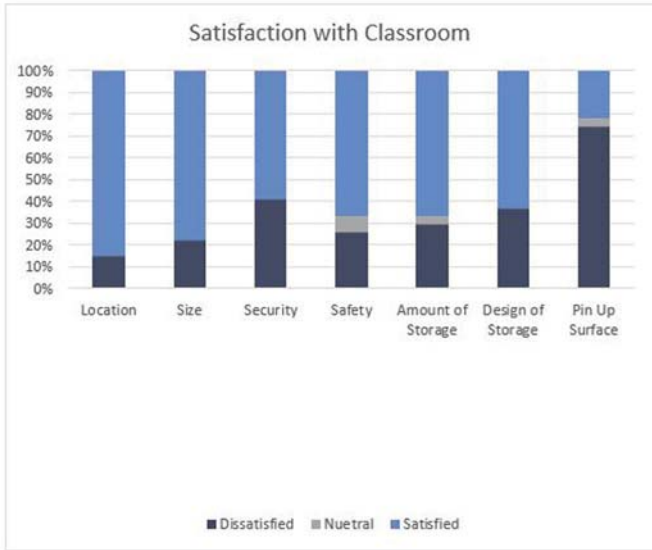
The teachers and instructional staff were surveyed about their use of Discovery Elementary and the design of its spaces. Everyone agreed that the school design contributed to collaboration, teaching and learning. They agreed that the design enhanced engagement with the outdoors and fostered environmental stewardship. The majority of the teachers also agreed that the design met the project health goals by promoting physical activity and positive attitudes in students.

Overall, the teachers were satisfied with their classrooms and school. Eighty-eight percent reported satisfaction with the design of their classroom and agreed that the school building supported teaching needs and needs of the students.

One concern was for the acoustics coming from the Dining Commons and other public spaces. Although 76% reported satisfaction with the noise from HVAC, and 74% were satisfied with the quality of sound in the room, 59% reported dissatisfaction with the noise from surroundings. Although 85% of teachers were satisfied with the location, and 78% were satisfied with the size of their classrooms, 74% reported dissatisfaction with the pin up space.

Staff requested more whiteboards and a desire for more wall space for display of student work inside and outside of the classroom. Over 60% of the teachers are satisfied with the amount of storage in the classrooms; however, 30% were dissatisfied with the design of storage. Although some commented that they would like more storage, the common theme was for more lockable storage.



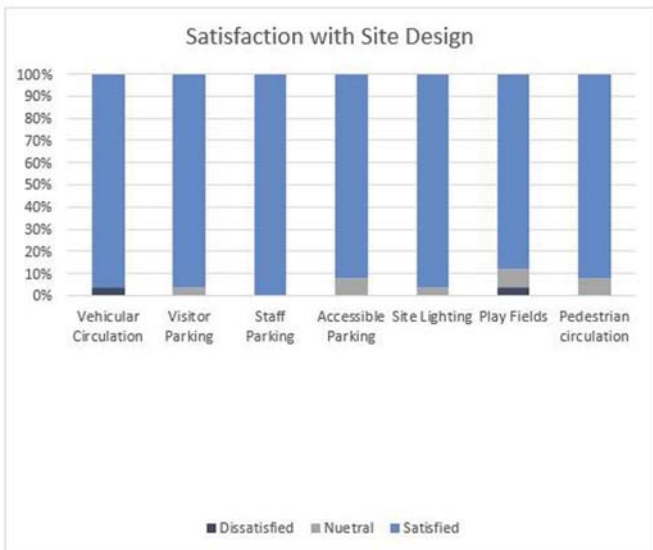
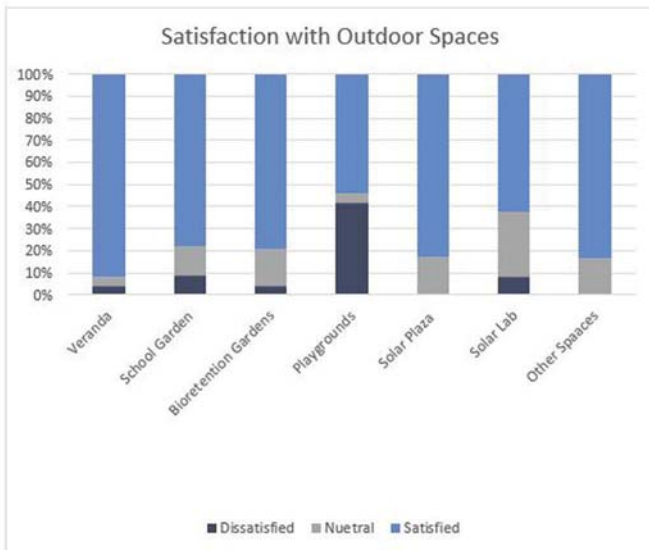
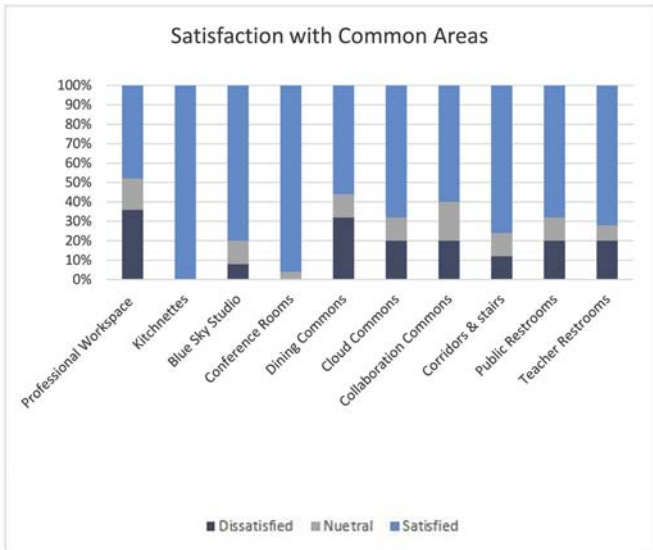
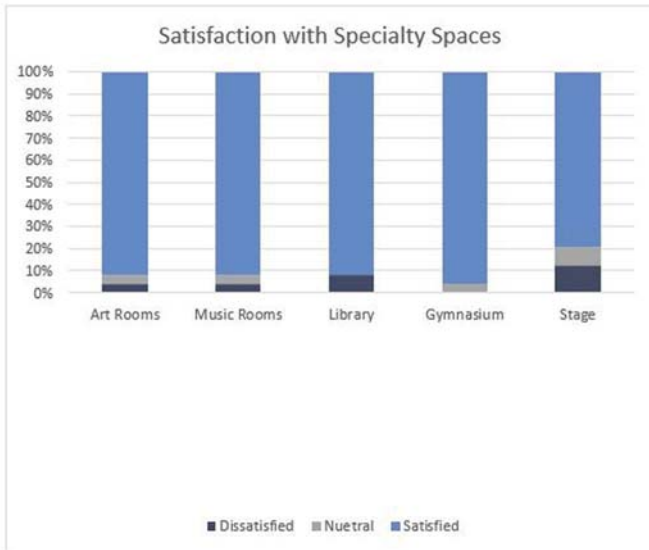


Lockable file cabinets were purchased in September 2015 at the request of School Administration. Security was a concern for 22% of the respondents. Another 89% were satisfied with the natural daylight and 77% were satisfied with the view to the outdoors.

Teachers noted that the sinks & water fountains are used frequently along with the smartboards. The most frequent activities in the classroom are listening to lessons and stories, working as individuals and groups, and using computers or technology. Eighty-nine percent of respondents reported using their classrooms for physical activity or movement breaks.

About 80% of staff were aware of the movement promoting furniture and report seeing children utilizing this function. However, only 24-30% felt that these features contributed to student learning, thus 48% were satisfied, 44% dissatisfied and 8% were neither satisfied or dissatisfied with the furniture.

While the kitchenettes proved to be popular and well utilized, the adjacent Professional Workspaces are used weekly by just 28% of staff. Those who used the space complained that it was used for storage or dedicated to the extended day program. Both the Work rooms and Conference rooms are used regularly.



Of the outdoors spaces the Veranda was the most popular, regularly used by 46% of the staff. One common theme was that the outdoor play spaces need more shade. Several teachers stated that the length of the playground made supervision more difficult.

Overall the staff was pleased with the design of Discovery. Some survey respondents commented that they would like to get more training about the building. Many of the teachers are already incorporating the building into their teaching and using signage, the dashboard and solar lab in their lessons.



Building as a Teaching Tool

by Keith Reeves + Andrew Bridges, Discovery ES staff



SOLAR LAB

The school itself is an experiential learning environment, affording students opportunities to experience their world and the world’s place in the larger solar system and galaxy. The wayfinding-based school design mirrors this system of ever-expanding inquiry.

Kindergarteners begin their experience in the Backyard, represented by a birdhouse. Students use the life-sized silhouettes of animals they study and may see in their daily lives to understand scale, as well as the basic idea of habitat.

First graders expand to the Forest, which is adorned with natural Virginia woods and scale representations of Virginia wildlife, all keyed to explanatory placards. Students learn to correlate symbols with meaning, further experience life-sized silhouettes, and use the number describing height and weight as authentic examples of basic numeracy.

Second graders swim in the Ocean of learning, and gain access to movable-wall classrooms that can open to create collaborative schools of our young learning fish. Having a facility that can be reconfigured is essential to providing larger-group opportunities to promote pro-social interactions that are developmentally essential.

Third graders move to the second floor, and literally up into the Atmosphere, where the blue sky painted areas and natural skylights also feature scale silhouettes of Virginia avian wildlife. Our Blue Sky Studio and Cloud Commons areas here provide clear sight to the wide outside world, and give large flexible spaces in which students have the ability to film, dance, dramatize, and design their own collaborative workspaces as they move from “lower” to “upper” elementary, again impossible without a school built as a teaching tool.



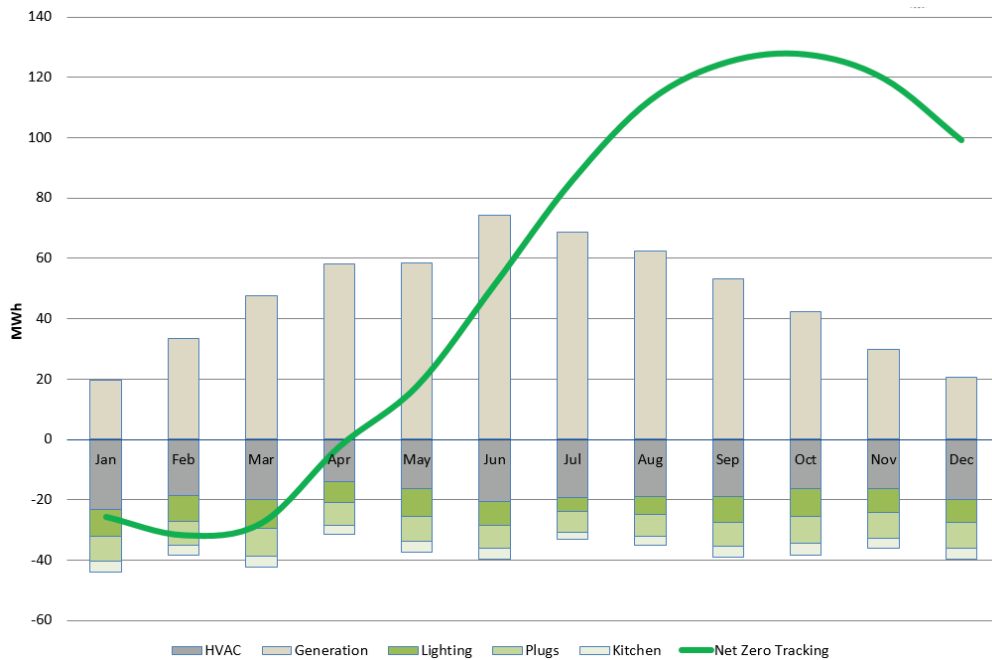
Fourth graders expand their inquiry even further, beyond Earth to the Solar System, as they delve deeply into curricular content that explores the natural and physical laws of their larger worlds. This includes studying circuits and how electricity travels, including from our 1,706 solar panels throughout the school itself. Fifth-graders go even further into the Galaxy, the widest scope of inquiry and exploration at Discovery. Located directly next to the outdoor Solar Lab, students in these two areas can step out into the world and see into space, as well as harness its power with student-controlled solar cells.

The Energy Dashboard is available in the cloud, but a large multi-touch display in this environment once again turns a wall into a learning experience. Both the Solar Lab and Energy Dashboard are used extensively as part of the fifth-grade science curriculum, including the unit on light. The Energy Dashboard is also available

to schools throughout the Division. Likewise, the Solar Oculus, at the entrance of the building, is used in September, December, March and June, marking the equinoxes and solstices, to track changes in the solar calendar and how those changes play out in changes to the seasons and weather. In addition, this supports the math curriculum, as measurements of sun elevation and azimuth reinforce student understanding of angles and circles.

Fifth graders also study Discovery's bio-retention basins as part of their unit on weathering, erosion and deposition, and how trapping runoff on campus prevents erosion and promotes deposition by stemming the flow of sediment into the Chesapeake Bay Watershed. Future projects in fifth-grade science are focused on improving the basins as wildlife habitat, specifically for bird, in support of our vertebrate life unit.

Building Performance



2017 ENERGY PERFORMANCE DATA

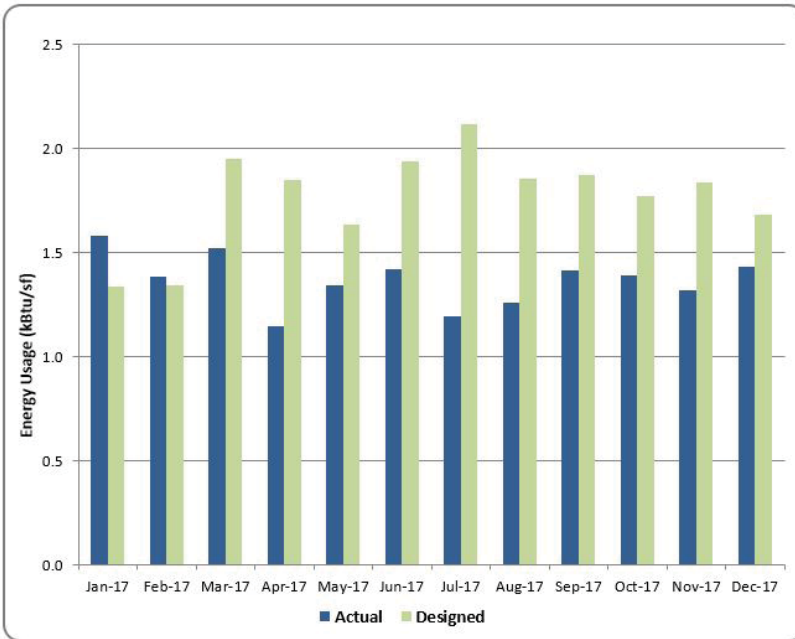
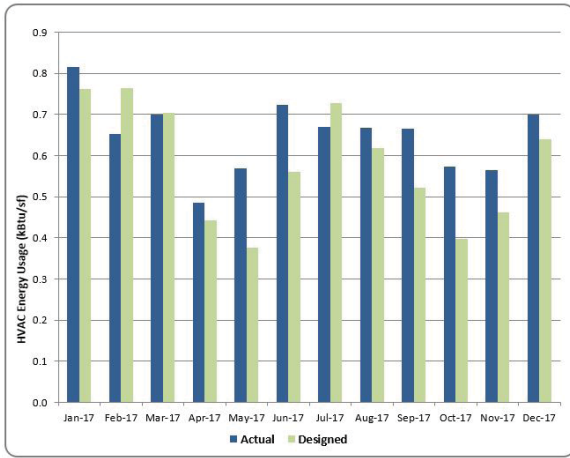
As demonstrated in the graph above, energy production has been significantly exceeding energy usage. The more detailed bar charts on page 8 show that overall energy usage is even less than what was predicted in design.

The solar (PV) array did not come on-line until late January 2016, with commissioning ongoing through June of 2016. Despite that, Discovery returned 16,704 kilowatt-hours (kWh) of carbon-free electricity to the grid in 2016.

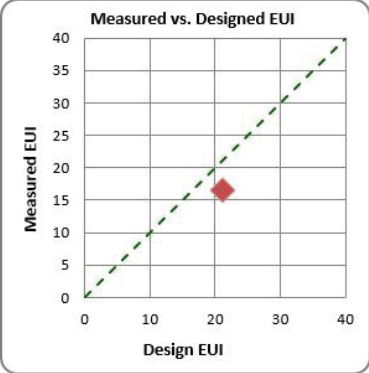
For calendar year 2017, Discovery operated as a net positive building, with 469,160 kWh of consumption and 568,441 kWh of production from the solar array – resulting in 99,281 kWh returned to the grid. This means Discovery powered itself plus the equivalent of about 7.5 average Virginia homes for an entire year. The school is net-metered, meaning the meter measures

electricity flowing in both directions and produces the net monthly consumption. Dominion had never before net-metered a PV array of this size before (496 kW), and required a minimum monthly charge of \$1,060. As a net-positive-producer of energy, Discovery builds credits against any net-consumption month (usually November through February) and can carry those credits for three years under current Dominion rules.

The cost per kWh for electricity at APS elementary schools is \$0.092/kWh. Most other schools also consume natural gas as well. An equally sized APS elementary school accrues approximately \$119,057.00 in annual energy costs and \$17,956 in water costs, for a total of \$137,013 in annual utility costs



Designed EUI= 21.2
 YTD kBtu/sf= 16.4
 Actual EUI= 16.4



Discovery has \$7,320 in annual water costs and a required minimum annual energy cost of \$12,720, resulting in an annual utility cost of \$20,040. This results in \$116,973 of cost avoidance from what would be spent at a typical APS elementary school of the same size.

The life cycle cost analysis did not justify spending additional construction dollars for rainwater harvesting, rather the project chose to maximize water conservation measures and showcase educational opportunities regarding water through the bio-retention basins. The project estimated using 527,000 gallons of potable water annually, but used 456,000 gallons in 2016, 49% less than the average APS elementary school.

The building was originally budgeted for LEED Silver certification and achieved LEED Gold and Net Zero Energy with no increase to the original budget. Discovery was awarded Energy Star certification with a perfect score of 100 out of 100. It is the largest Net Zero K-12 facility in the United States.

School operating dollars are some of the most precious of all public tax dollars. Through conservation matched with on-site power generation, this project leveraged one of the nation's lower bond borrowing rates to reduce the demands on money collected from an already high property tax rate – freeing this school's operating funds to be used for other needs. An all-electric facility, the building hedges against future energy inflation by offsetting consumption kilowatt-to – kilowatt. In fact, the more electricity rates go up, the higher the ROI becomes for APS's investment in clean energy.

Financials

Project Cost + Budget Summary

	AMOUNT	% OF BASE CONTRACT
CHANGE ORDER SUMMARY		
Owner Directed	\$635,654	1.97%
Arlington County Department of Parks & Recreation	\$1,697	0.01%
Field Condition	-\$82,734	-0.26%
A/E Error	\$451,409	1.40%
A/E Omission	\$23,090	0.07%
Permit/Inspection Revision	\$181,272	0.56%
TOTAL CHANGE ORDERS (CO #1 - #11)	\$1,210,388	3.75%
HARD COST SUMMARY		
Base Contract	\$32,305,807	
Total Change Orders (CO #1 - #11)	\$1,210,388	
Total Contract (Base Contract + Total Change Orders)	\$33,516,195	
Closeout Agreement (CO #12)	-\$836,065	
Other Construction Costs	\$774,319	
TOTAL HARD COST (Total Contract + Closeout Agreement + Other Closeout Costs)	\$33,454,449	
SOFT COST SUMMARY		
Design Fees	\$3,748,460	
Project Management	\$2,132,935	
General Requirements	\$1,750,338	
Equipment	\$1,852,384	
TOTAL SOFT COST	\$9,484,118	
TOTAL PROJECT COST (TOTAL HARD COST + TOTAL SOFT COST)	\$42,938,566	
TOTAL PROJECT BUDGET	\$43,802,827	
DELTA (TOTAL PROJECT BUDGET - TOTAL PROJECT COST)	\$864,261	















Awards

2018 First Place Technology Award

ASHRAE Region VII

2017 AIA COTE Top Ten Award Winner

American Institute of Architect's Committee on the Environment

2017 Green Ribbon School

U.S. Department of Education

2017 Presidential Citation for Sustainability

AIA|DC

2017 Platinum Design Award

Virginia School Boards Association

2017 Special Jury Recognition Award

Virginia Chapter of the Association for Learning Environments

2016 Project of Distinction

Association for Learning Environments

2016 Honor Award

AIA Central Virginia

Fall 2016 Honorable Mention

Learning By Design

2015 Award of Excellence

Design Arlington Awards

Publications:

Architect Magazine: What It Takes to Go Net-Zero

Architectural Products Magazine: Health & Education

Architectural Record: Active Design

ASHRAE: Advanced Energy Design Guide for K12 School Buildings

Building Green: Why Schools Are Embracing Net-Zero Energy

Department of Energy: What Is a Zero Energy School?

Education Week: Energy Efficiency Is Built into the Mission at 'Green Schools'

Green Schools Catalyst Quarterly (December 2017): How a School Division's Strategic Plan Inspired a Zero Energy Elementary School

Green Schools National Network: Delivering High Performance Learning Environments and Zero Energy Schools

Green Schools National Network: The (Solar) Power of Authenticity

Green Schools National Network: Net-Zero Discovery Elementary School in Arlington, VA Raises the Bar for Energy Efficiency

High Performance Building Magazine: Discovery Elementary School (Forthcoming in May 2018)

Inside Climate News: 5,500 Schools Use Solar Power; and That's Growing as Costs Fall, Study Shows

The Kendeda Fund: Net Zero Energy Schools Roadmap

The Kendeda Fund: A Wave of Net Zero Energy Schools Crests in the South

The Learning Counsel: Redesigning Your School or Classroom for a New Age

National Geographic: The Top 10 Green Buildings of 2017



NEA Today: Challenging the Traditional Definition of a Learning Space

Net Zero Buildings Magazine: Discovery Elementary

Politico: 5 Buildings Designed to Make You Healthier

School Planning & Management: Think. Make. Do: Students at Discovery Elementary School SHINE as Expert Designers

The Solar Foundation: Bright Future – A Study on Solar in U.S. Schools

SNAP Architectural News and Products: Teaching Tool: The Net Zero Building for a Virginia School Informs Green Curriculum

Voice of America: US Elementary School Offers Living Science Lessons

WAMU: Arlington's Discovery Elementary Being Built as First Net Zero School in Virginia

Washington Post: More Sunlight, Movable Walls: New Virginia School Reflects New Teaching Ideals


WTOP: New Net-Zero Elementary School Set to Open in Arlington

ASCD Educational Leadership: Fostering More Vibrant Schools



DISCOVER ELEMENTARY SCHOOL
5241 36TH ST. N.

1



“I think what is most important about this building is that it allows teachers to think about how we learn and how students learn. Curriculum is just something the state gives to us and you can teach that anywhere, but with this space, we can really get creative, and experiment, and shepherd meaningful experiences for students.”

“...There are so many sustainable features that the school really provides an authentic learning experience for students. If you ask any of our 5th graders what their favorite project has been, hands down, they will talk about their sustainability research project researching their school building. We have many visitors coming to Discovery. Our 5th graders are so eager to be the tour guides and show off their building and talk about the geothermal wells and how the solar panels work. They are proud of their school and the knowledge they gained through that research experience.”

Erin Russo
Principal
Discovery Elementary School

Appendix

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Constant Contact Survey Results

Survey Name: Discovery Elementary School BLPC Survey

Response Status: Partial & Completed

Filter: None

Top number is the count of respondents selecting the option.

Bottom % is percent of the total respondents selecting the option.

The members chosen to serve on the BLPC represented an appropriate cross-section of interests and stakeholders in the school's success.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
	0	0	0	6	4
	0%	0%	0%	60%	40%

No Comment(s)

The materials presented to you (drawings, data, models, renderings, etc) were clear and easy to understand.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
	0	0	0	5	5
	0%	0%	0%	50%	50%

1 Comment(s)

Very well done and effective

BLPC Members had ample opportunity to make their views / wishes clear.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
	0	0	1	5	4
	0%	0%	10%	50%	40%

2 Comment(s)

More than ample

Although some weeks it felt like decisions had already been made, so the discussions were irrelevant.

APS and VMDO Architects were responsive to the requests of the BLPC, and the ideas presented each meeting satisfactorily addressed concerns and directions established by the BLPC the preceding week.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
	0	0	1	4	5
	0%	0%	10%	40%	50%

2 Comment(s)

Patient, informative, effective masterful at all meetings

Some weeks, I would strongly agree and others I would strongly disagree so I chose in the middle.

The building came out the way it was expected. There were no unfortunate "surprises".

Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
1	1	0	4	4
10%	10%	0%	40%	40%

4 Comment(s)

Beautiful as planned and envisioned

The slide was not in any plans seen by the BLPC during the process. While the students love it, I am concerned about potential injuries and liability from it.

The gymnasium doesn't have any room for spectators. This has been a challenge for kids basketball games.

The conversion of the playing field from natural grass to turf with the possibility of lights was a deceitful LIE played upon the neighborhood. Countless times, Parks was asked to clarify their position on the fields - and countless times they were

The spaces look, work and feel they way they were envisioned during planning.

Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
0	0	0	4	6
0%	0%	0%	40%	60%

2 Comment(s)

While it is wonderful to have so much glass and natural light throughout the building, there is a question of how to "hide" during lockdown drills. Where do students, teachers and staff go if they need to not be seen?

If anything, they're even better.

Vehicular and bus traffic flow work the way they were envisioned during planning.

Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
0	0	2	4	4
0%	0%	20%	40%	40%

3 Comment(s)

The 2 lane car drop off remains a safety concern.

Have not observed this enough to comment

Traffic on Harrison (both directions at Williamsburg) gets very backed up because of the kids crossing Williamsburg.

Sometimes only a single car can turn right during a green light (coming from Discovery) and no cars can turn left (coming from Yorktown). This causes a lot of frustration. I don't think Toole had the correct assumptions.

Do you agree that the design of your school building and grounds contribute to the following:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Teaching, learning, and spontaneous teaching (teachable) moments	1 10%	0 0%	1 10%	6 60%	2 20%
Teacher Collaboration	1 10%	0 0%	3 30%	4 40%	2 20%
Interdisciplinary teaching and learning	1 10%	1 10%	2 20%	4 40%	2 20%
A sense of pride and well-being in staff and students	1 10%	0 0%	0 0%	7 70%	2 20%
Noticing, appreciating, and interacting with the outdoor environment	1 10%	0 0%	1 10%	5 50%	3 30%
Environmental stewardship	1 10%	0 0%	1 10%	5 50%	3 30%
Valuable outdoor resources available to the Arlington community	1 10%	0 0%	2 20%	4 40%	3 30%
Valuable indoor resources available to the Arlington community	1 10%	0 0%	3 30%	3 30%	3 30%
No Comment(s)					

Do you agree that the design of the building and grounds have contributed to any of the following health-related improvements:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
General Health/Healthy Lifestyles	1 10%	0 0%	3 30%	3 30%	3 30%
Physical Education/Physical Activity	1 10%	0 0%	2 20%	4 40%	3 30%
Nutrition	1 13%	1 13%	2 25%	3 38%	1 13%
Culture of health	1 10%	0 0%	3 30%	4 40%	2 20%
Teacher Productivity	1 10%	0 0%	3 30%	3 30%	3 30%
Positive Attitude and moods in Students	1 10%	0 0%	2 20%	5 50%	2 20%
Positive Student Behavior	1 10%	0 0%	4 40%	3 30%	2 20%
No Comment(s)					

School Building - General Layout Please indicate how satisfied you are with the general layout of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied nor Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied
Efficient & safe pedestrian flow	1 10%	0 0%	0 0%	0 0%	0 0%	5 50%	4 40%
Administrative ability to control access & monitor security	1 10%	0 0%	0 0%	0 0%	1 10%	5 50%	3 30%
Location & organization of classroom wings	1 10%	0 0%	0 0%	0 0%	0 0%	5 50%	4 40%
Corridor width	1 10%	0 0%	0 0%	0 0%	0 0%	4 40%	5 50%
Ability to easily navigate the building	1 10%	0 0%	0 0%	0 0%	0 0%	4 40%	5 50%

2 Comment(s)

It's great.

Lots of doors to lock at 9am and many easy ways to get in from 4-6. It's a little scary for parents of kids in Extended Day.

School Building - Characteristics Please indicate how satisfied you are with the following characteristics of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied nor Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied
Building Cleanliness & Maintenance	1 10%	0 0%	0 0%	0 0%	0 0%	6 60%	3 30%
Building Security	1 10%	0 0%	0 0%	0 0%	1 10%	6 60%	2 20%
Building Safety	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Exterior Material & Colors	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Interior Materials & Colors	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Signage	1 10%	0 0%	0 0%	0 0%	0 0%	6 60%	3 30%

1 Comment(s)

The amount of glass is great for spreading light but causes challenges for lockdowns.

School Building - Site Design Please indicate how satisfied you are with the following characteristics of your school building (i.e. that they are safe, adequately sized, appropriately located, and operate efficiently and effectively):

	Very Dissatisfie d	Dissatisfie d	Somewhat Dissatisfie d	Neither Dissatisfie d nor	Somewhat Satisfied	Satisfied	Very Satisfied
Vehicular Circulation	1 10%	0 0%	0 0%	1 10%	2 20%	4 40%	2 20%
Visitor Parking	1 11%	0 0%	0 0%	0 0%	0 0%	5 56%	3 33%
Staff Parking	1 11%	0 0%	0 0%	1 11%	0 0%	4 44%	3 33%
Accessible Parking	1 11%	0 0%	0 0%	2 22%	0 0%	3 33%	3 33%
Site Lighting	1 11%	1 11%	0 0%	0 0%	1 11%	4 44%	2 22%
On-Site Play Fields	1 11%	1 11%	0 0%	0 0%	0 0%	5 56%	2 22%
Pedestrian circulation	1 11%	0 0%	0 0%	0 0%	1 11%	5 56%	2 22%
Landscape Design	1 11%	0 0%	0 0%	0 0%	1 11%	4 44%	3 33%
Landscape Maintenance	1 11%	1 11%	0 0%	0 0%	1 11%	3 33%	3 33%

5 Comment(s)

Fantastic campus

Buying some maintenance upfront, especially on landscape is a very prudent investment.

Double lane cause problems sometimes during pickup and drop off.

I have concern of how land scape will be maintained after the three years.

Too much site lighting. Fields were supposed to be grass & are now turf. Landscape maintenance on western boundary is horrible, and newly planted trees are dying in large numbers.

What is your favorite place in the building / site?

5 Response(s)

slide from 2 to 1

The mechanical room!

Scrabble board up in the

Commons

Blue Sky Studio

Playground/Library

What rooms / spaces do students get excited to go to? What features do students most enjoy?

5 Response(s)

Art room

The slide I assume!

The slide

The Slide, any of the common

spaces

Dining commons/outdoor area

Do you have any additional comments about your classroom, school building, or school grounds?

2 Response(s)

Grounds conditions are our best start of any recent new or renovated school

It's a beautiful facility.

School Building - General Layout Please indicate how satisfied you are with the general layout of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Efficient & safe pedestrian flow	1 10%	0 0%	0 0%	0 0%	0 0%	5 50%	4 40%
Administrative ability to control access & monitor security	1 10%	0 0%	0 0%	0 0%	1 10%	5 50%	3 30%
Location & organization of classroom wings	1 10%	0 0%	0 0%	0 0%	0 0%	5 50%	4 40%
Corridor width	1 10%	0 0%	0 0%	0 0%	0 0%	4 40%	5 50%
Ability to easily navigate the building	1 10%	0 0%	0 0%	0 0%	0 0%	4 40%	5 50%

2 Comment(s)

It's great.

Lots of doors to lock at 9am and many easy ways to get in from 4-6. It's a little scary for parents of kids in Extended Day.

School Building - Characteristics Please indicate how satisfied you are with the following characteristics of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Building Cleanliness & Maintenance	1 10%	0 0%	0 0%	0 0%	0 0%	6 60%	3 30%
Building Security	1 10%	0 0%	0 0%	0 0%	1 10%	6 60%	2 20%
Building Safety	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Exterior Material & Colors	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Interior Materials & Colors	1 10%	0 0%	0 0%	0 0%	0 0%	7 70%	2 20%
Signage	1 10%	0 0%	0 0%	0 0%	0 0%	6 60%	3 30%

1 Comment(s)

The amount of glass is great for spreading light but causes challenges for lockdowns.

School Building - Site Design Please indicate how satisfied you are with the following characteristics of your school building (i.e. that they are safe, adequately sized, appropriately located, and operate efficiently and effectively):

	Very Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Very Satisfied
Vehicular Circulation	1 10%	0 0%	0 0%	1 10%	2 20%
Visitor Parking	1 11%	0 0%	0 0%	0 0%	5 56%
Staff Parking	1 11%	0 0%	0 0%	1 11%	4 44%
Accessible Parking	1 11%	0 0%	0 0%	2 22%	3 33%
Site Lighting	1 11%	1 11%	0 0%	0 0%	1 11%
On-Site Play Fields	1 11%	1 11%	0 0%	0 0%	5 56%
Pedestrian circulation	1 11%	0 0%	0 0%	0 0%	1 11%
Landscape Design	1 11%	0 0%	0 0%	0 0%	1 11%
Landscape Maintenance	1 11%	1 11%	0 0%	0 0%	1 11%

5 Comment(s)

Fantastic campus

Buying some maintenance upfront, especially on landscape is a very prudent investment.

Double lane cause problems sometimes during pickup and drop off.

I have concern of how land scape will be maintained after the three years.

Too much site lighting. Fields were supposed to be grass & are now turf. Landscape maintenance on western boundary is horrible, and newly planted trees are dying in large numbers.

What is your favorite place in the building / site?

5 Response(s)

slide from 2 to 1

The mechanical room!

Scrabble board up in the

Commons

Blue Sky Studio

Playground/Library

What rooms / spaces do students get excited to go to? What features do students most enjoy?

5 Response(s)

Art room

The slide I assume!

The slide

The Slide, any of the common

spaces

Dining commons/outdoor area

Do you have any additional comments about your classroom, school building, or school grounds?

2 Response(s)

Grounds conditions are our best start of any recent new or renovated school

It's a beautiful facility.

Constant Contact Survey Results

Survey Name: Discovery Elementary School Facility and Operation Staff and Instructional Supervisors Survey

Filter: None

Top number is the count of respondents selecting the option.
Bottom % is percent of the respondents selecting the option.

School Building - General Layout Please indicate how satisfied you are with the general layout of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Efficient & safe pedestrian flow	0 0%	0 0%	0 0%	6 55%	1 9%	3 27%	1 9%
Administrative ability to control access & monitor security	0 0%	0 0%	1 9%	4 36%	3 27%	2 18%	1 9%
Location & organization of classroom wings	0 0%	1 9%	0 0%	3 27%	1 9%	4 36%	2 18%
Corridor width	0 0%	0 0%	0 0%	3 27%	2 18%	3 27%	3 27%
Ability to easily navigate the building	1 9%	0 0%	0 0%	3 27%	1 9%	4 36%	2 18%

1 Comment(s)

This building was designed, built and completed prior to my being employed by APS.

School Building - Characteristics Please indicate how satisfied you are with the following characteristics of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Building Cleanliness & Maintenance	0 0%	0 0%	0 0%	2 18%	1 9%	4 36%	4 36%
Building Security	0 0%	1 9%	0 0%	4 36%	1 9%	5 45%	0 0%
Building Safety	1 9%	0 0%	0 0%	3 27%	0 0%	6 55%	1 9%
Signage	0 0%	1 9%	0 0%	2 18%	0 0%	5 45%	3 27%
Color Scheme	1 10%	0 0%	0 0%	3 30%	0 0%	3 30%	3 30%
General Ease of Maintenance	1 9%	0 0%	0 0%	2 18%	2 18%	4 36%	2 18%

No Comment(s)

School Building - Finishes + FixturesPlease indicate how satisfied you are with the following characteristics of your school building (i.e. that they are appropriate, attractive, and easy to maintain):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Corridor Floor Finishes	0 0%	0 0%	0 0%	2 20%	2 20%	2 20%	4 40%
Classroom Floor Finishes	0 0%	0 0%	0 0%	2 20%	2 20%	2 20%	4 40%
Toilet Finishes	0 0%	1 10%	0 0%	3 30%	2 20%	3 30%	1 10%
Gym Finishes	0 0%	2 22%	1 11%	2 22%	0 0%	3 33%	1 11%
Wall Surfaces	1 10%	1 10%	0 0%	2 20%	0 0%	4 40%	2 20%
Plumbing Fixtures	0 0%	1 11%	0 0%	1 11%	3 33%	2 22%	2 22%
Exterior Grounds	0 0%	0 0%	0 0%	1 11%	4 44%	2 22%	2 22%
Exterior Building Fixtures	0 0%	1 10%	0 0%	4 40%	1 10%	2 20%	2 20%

2 Comment(s)

The restrooms in the gymnasium have had lots of issues and either were not designed correctly or poorly installed
mat panels fell off the wallflooring lines have started to wear

School Building - Equipment + SystemsPlease indicate how satisfied you are with the following spaces of your school building (i.e. that they operate efficiently and effectively):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Mechanical Systems	0 0%	0 0%	0 0%	5 50%	2 20%	1 10%	2 20%
Building Automation System	0 0%	0 0%	0 0%	5 50%	1 10%	2 20%	2 20%
Plumbing Systems	0 0%	0 0%	0 0%	5 50%	1 10%	3 30%	1 10%
Telecom / Data	0 0%	0 0%	0 0%	7 70%	0 0%	1 10%	2 20%
Intercom	0 0%	0 0%	0 0%	6 60%	1 10%	1 10%	2 20%
Fire Alarm	0 0%	0 0%	0 0%	6 60%	0 0%	2 20%	2 20%
Door Hardware	0 0%	0 0%	1 11%	3 33%	2 22%	2 22%	1 11%
Proper locking and keying of doors	0 0%	0 0%	2 20%	3 30%	2 20%	3 30%	0 0%
Access and Alarm Systems	0 0%	0 0%	0 0%	6 60%	0 0%	2 20%	2 20%
Clocks	0 0%	0 0%	0 0%	5 50%	1 10%	2 20%	2 20%

School Building - Equipment + Systems Please indicate how satisfied you are with the following spaces of your school building (i.e. that they operate efficiently and effectively):

2 Comment(s)

Cannot evaluate the this section so indicated as neither dissatisfied or satisfied.

Since my arrival, have been notified and/or experienced improperly installed hardware (cylindrical locksets and panic devices specifically)

School Building - Site Design Please indicate how satisfied you are with the following characteristics of your school building (i.e. that they are safe, adequately sized, appropriately located, and operate efficiently and effectively):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Vehicular Circulation	0 0%	1 10%	0 0%	3 30%	1 10%	4 40%	1 10%
Visitor Parking	0 0%	1 10%	0 0%	2 20%	1 10%	5 50%	1 10%
Staff Parking	1 10%	0 0%	0 0%	3 30%	1 10%	4 40%	1 10%
Accessible Parking	0 0%	0 0%	0 0%	3 33%	2 22%	3 33%	1 11%
Site Lighting	0 0%	0 0%	1 10%	2 20%	1 10%	3 30%	3 30%
On-Site Play Fields	0 0%	0 0%	0 0%	3 30%	1 10%	3 30%	3 30%
Pedestrian Circulation	0 0%	0 0%	0 0%	4 40%	1 10%	2 20%	3 30%

No Comment(s)

School Building - Specialty Spaces Please indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Art Rooms	0 0%	0 0%	0 0%	5 56%	1 11%	2 22%	1 11%
Music Rooms	0 0%	0 0%	0 0%	5 56%	1 11%	2 22%	1 11%
Library	0 0%	0 0%	0 0%	5 56%	1 11%	2 22%	1 11%
Gymnasium	0 0%	0 0%	0 0%	4 40%	2 20%	3 30%	1 10%
Stage	0 0%	0 0%	0 0%	4 44%	2 22%	2 22%	1 11%

1 Comment(s)

Great to have high school size gym, but if doing so should enlarged the rest of the space (extend sidelines)

School Building - Common Areas Please indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Professional work spaces (next to kitchenettes)	0	0	0	5	0	3	0
	0%	0%	0%	63%	0%	38%	0%
Kitchenettes	0	0	0	6	0	3	0
	0%	0%	0%	67%	0%	33%	0%
Blue Sky Studio	1	0	0	5	0	3	0
	11%	0%	0%	56%	0%	33%	0%
Conference Rooms	0	0	0	5	1	3	0
	0%	0%	0%	56%	11%	33%	0%
Dining Commons	0	1	0	4	2	2	0
	0%	11%	0%	44%	22%	22%	0%
Cloud Commons	0	1	0	4	1	3	0
	0%	11%	0%	44%	11%	33%	0%
Collaboration Commons	0	1	0	5	0	3	0
	0%	11%	0%	56%	0%	33%	0%
Corridors & stairs	1	0	0	4	1	3	0
	11%	0%	0%	44%	11%	33%	0%
Public Restrooms	1	0	0	4	1	2	1
	11%	0%	0%	44%	11%	22%	11%
Teacher Restrooms	0	0	0	5	1	3	0
	0%	0%	0%	56%	11%	33%	0%

1 Comment(s)

Seating in cafeteria time-consuming to move around when using space for other than eating.

School Building & Grounds - Outdoor Spaces Please indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Veranda	1	0	0	4	1	2	1
	11%	0%	0%	44%	11%	22%	11%
School Garden	1	0	0	4	1	2	1
	11%	0%	0%	44%	11%	22%	11%
Bioretention Gardens	1	0	0	3	2	2	1
	11%	0%	0%	33%	22%	22%	11%
Playgrounds	0	1	0	4	2	2	1
	0%	10%	0%	40%	20%	20%	10%
Front Plaza Solar Calendar	0	1	1	2	1	2	2
	0%	11%	11%	22%	11%	22%	22%
Solar Lab	0	1	0	4	0	3	1
	0%	11%	0%	44%	0%	33%	11%
Other - Please explain	0	0	0	4	0	1	1
	0%	0%	0%	67%	0%	17%	17%

No Comment(s)

How satisfied are you with the design of the following spaces (and how they each support your teaching needs and meet the needs of your students)?

	Very Dissatisfied	Somewhat Dissatisfied	Neither Dissatisfied nor Satisfied	Somewh at Satisfied	Very Satisfied
Your Classroom	0 0%	1 11%	5 56%	1 11%	2 22%
Your School Building	1 11%	0 0%	5 56%	1 11%	2 22%
The Food Service at your School	1 11%	0 0%	5 56%	1 11%	2 22%
No Comment(s)					

Do you agree that the design of your school building and grounds contribute to the following:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Teaching, learning, and spontaneous teaching (teach-	0 0%	0 0%	6 67%	1 11%	2 22%
Teacher Collaboration	0 0%	0 0%	6 67%	1 11%	2 22%
Interdisciplinary teaching and learning	0 0%	0 0%	6 67%	1 11%	2 22%
A sense of pride and well-being in staff and students	0 0%	0 0%	3 33%	3 33%	3 33%
Noticing, appreciating, and interacting with the outdoor	0 0%	0 0%	3 38%	3 38%	2 25%
Environmental stewardship	0 0%	0 0%	4 44%	3 33%	2 22%
Valuable outdoor resources available to the Arlington	0 0%	0 0%	4 44%	3 33%	2 22%
Valuable indoor resources available to the Arlington	0 0%	0 0%	4 44%	3 33%	2 22%
No Comment(s)					

Do you agree that the design of the building and grounds have contributed to any of the following health-related improvements:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
General Health/Healthy Lifestyles	0 0%	1 11%	3 33%	3 33%	2 22%
Physical Education/Physical Activity	0 0%	1 11%	4 44%	1 11%	3 33%
Nutrition	0 0%	1 11%	4 44%	3 33%	1 11%
Culture of health	0 0%	1 11%	4 44%	3 33%	1 11%
Teacher Productivity	0 0%	0 0%	5 56%	3 33%	1 11%
Positive Attitude and moods in Students	0 0%	0 0%	5 56%	3 33%	1 11%
Positive Student Behavior	0 0%	0 0%	5 56%	3 33%	1 11%

What is your favorite place in the building / site?

5 Response(s)

entry corridor

exterior lights are very bright around the building

Solar Lab

The Exit

gym

What rooms / spaces do students get excited to go to? What features do students most enjoy?

4 Response(s)

Cafeteria seems to be very exciting!

No idea

Lunch

gym

Do you have any additional comments about your classroom, school building, or school grounds?

2 Response(s)

If we have another LEED Gold school, please have a back up ready for the walk-in freezer and refrigerator until the system is working without disruption. Also need to have the computer system ready for Food Service sales and need hot water available from the beginning.

Better materials, better quality of workmanship, less wasted space.

Constant Contact Survey Results

Survey Name: Discovery Elementary School Instructional Staff Survey

Response Status: Partial & Completed

Filter: None

Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.

In what space do you perform your primary function?		
	Number of Response(s)	Response Ratio
Typical Classroom / Homeroom	18	62.0%
Small Group Learning	3	10.3%
Gymnasium	1	3.4%
Library	3	10.3%
Art Classroom / Music Classroom	3	10.3%
Administrative Offices	2	6.8%
Dining Commons / Kitchen	0	0.0%
Special Education Classroom	1	3.4%
SPED / Resource Classroom	0	0.0%
Other - Please explain	3	10.3%
Total	29	100%
5 Comment(s)		
Fishbowls for Collaborative Learning Team meetings.		
I worked as the instructional technology coordinator for last year, so I really worked all over the building.		
Studio room		
FLES classroom		
Resource Teacher for Gifted		

Frequency of Use: General Features How frequently do you (and / or your students) use the following resources in your primary workspace?						
	Don't Have	Never	Rarely	Monthly	Weekly	Daily
Books	1 4%	0 0%	1 4%	1 4%	3 11%	21 78%
Computer Intercom System	4 15%	10 38%	7 27%	0 0%	2 8%	3 12%
Data Outlets (versus WiFi only)	4 15%	9 35%	8 31%	1 4%	0 0%	4 15%
Window Shades	1 4%	0 0%	8 29%	3 11%	3 11%	13 46%
Operable Windows	5 18%	6 21%	9 32%	2 7%	2 7%	4 14%
Sink(s)	1 4%	0 0%	1 4%	0 0%	0 0%	26 93%
Thermostat	2 7%	5 19%	7 26%	1 4%	7 26%	5 19%
Water fountain in the classroom	2 8%	0 0%	1 4%	0 0%	1 4%	22 85%
Other (Please Explain)	0 0%	1 33%	0 0%	0 0%	0 0%	2 67%

9 Comment(s)

the water fountain in my room is rarely used because the water tastes pretty awful. We use the water fountain next to the main office. much better tasting!!

Garage Door-monthly

Don't know what computer intercom system and data outlets refer to ?

The sinks in my room are very high for the smaller students in the school. They can not reach the water fountains or the sinks. Most smaller children are unable to reach the soap even if they are able to turn on the sink. there was an issue with the way the faucets of the sinks were installed and there have a been a couple leaks this year.

I don't know what you mean by Computer Intercom System or Data Outlets

My computer is hardwired to the Smart panel; actually have no clue if that provides data (!) or it's solely through wifi...

The window screens are extremely poorly designed, and even more poorly installed. They are functionally useless and near-impossible to move to open windows. Latches broke on first use, leaving a gap between screen and open window.

I am not sure what data outlets are or if I have them.

Smart board to show educative videos, play interactive games and do activities.

I do wish there was more white board space in the general ed classrooms. I use my space as well as classrooms and there is not much space to add to the boards. Also, it would be helpful to have tack strips on the cupboards and in halls to display anchor charts and student work.

Frequency of Use: Technology How frequently do you (and / or your students) use the following technologies in your school & grounds ?

	Don't Have	Never	Rarely	Monthly	Weekly	Daily
32" television	15 54%	6 21%	4 14%	0 0%	2 7%	1 4%
Mobile Smartboard	15 54%	5 18%	5 18%	1 4%	1 4%	1 4%
Wall Mounted Smartboard	1 4%	0 0%	0 0%	0 0%	2 7%	24 89%
Smartboard for digital display only (no interaction)	4 14%	1 4%	2 7%	2 7%	7 25%	12 43%
Smartboard as an interactive tool, i.e. using the touch features	0 0%	0 0%	8 29%	2 7%	5 18%	13 46%
MediaScape tables in the Collaboration Commons	1 4%	12 43%	10 36%	4 14%	1 4%	0 0%
Monitors in the conference rooms	0 0%	3 11%	2 7%	7 25%	13 46%	3 11%

4 Comment(s)

The mediascape tables do not apply to my primary grade level.

In the past I introduced lessons with a powerpoint when the students were on the carpet, but because the smart board in the classroom, table portion of the room it has changed up the way I do instruction. I've adjusted to this change but in an ideal world there would be a projector based TV or monitor in the carpet area of the room to show objectives and examples of art work while the students are entering the room.

32" TV was a total waste of money. It sits...and sits. Not even clear how to use. Terrible interface.

It would be helpful to have 2 monitors in the Fishbowls and Sunroom as teachers often pull up data on one screen and have to constantly "bump off" to project agenda or samples.

It gets really loud in the Collaboration Commons and Cloud Commons, and they do not have movable walls to help sound and visual focus.

Activities How frequently do your students engage in the following activities in your primary workspace?

	Never	Rarely	Montly	Weekly	Daily
Listen to Lecture / Lessons	0 0%	0 0%	0 0%	2 8%	24 92%
Storytime / Storytelling	1 4%	0 0%	0 0%	4 16%	20 80%
Learning Centers / Listening Stations	1 4%	6 23%	3 12%	1 4%	15 58%
Group Activities / Projects	0 0%	2 7%	3 11%	5 19%	17 63%
Individual Work	0 0%	0 0%	0 0%	4 15%	23 85%
Use technology / Computer	2 8%	3 12%	1 4%	4 15%	16 62%
Physical Activity / Movement Breaks	1 4%	0 0%	2 7%	3 11%	21 78%
Nap / Rest	15 56%	6 22%	0 0%	0 0%	6 22%
Student Presentations / Performances	0 0%	4 15%	14 54%	6 23%	2 8%
Other (Please Explain)	1 100%	0 0%	0 0%	0 0%	0 0%

4 Comment(s)

museum wall monthly-by grade level project

I have older students bring their iPad with them to class everyday to use as visual resources in the classroom. I have a google classroom set up so they they also use them as an exit ticket during some lessons as well, more outlets around the room would be helpful to have more charging stations to set up for them to charge their iPads I have 6 iPads in my classroom for use by my Kindergarteners but I haven't yet introduced them. As soon as I buy earphones I will begin to use them as an activity center or a listening station. Students are only in my room once per week.

Common Areas How frequently do you use the following resource spaces in your school & grounds?

	Never	Rarely	Monthly	Weekly	Daily
Professional work spaces (next to kitchenettes)	10 40%	8 32%	0 0%	4 16%	3 12%
Kitchenettes	0 0%	4 16%	0 0%	1 4%	20 80%
Admin and 2nd floor Workrooms	2 8%	4 16%	5 20%	5 20%	9 36%
Conference Rooms	0 0%	4 16%	9 36%	8 32%	4 16%
Blue Sky Studio	5 21%	7 29%	9 38%	1 4%	2 8%
Other - please explain	2 67%	0 0%	0 0%	1 33%	0 0%

7 Comment(s)

The cloud commons is so loud. It needs a glass wall or something to help with the noise issue.

Our workspace is dedicated to Extended Day

-Kitchenettes would be much more helpful if attached to a real workroom with a large copier/printer

There is no designed teachers lounge to go to for a meeting space for teachers. The one they tried to create is

We have our meetings in the sun room (conference room in blue sky studio) bi-weekly

Not sure what the idea was behind the work spaces. They seem a waste.

Scrabble Wall, Slide area

Public Learning SpacesHow frequently do your students use the following learning spaces in your school & grounds?

	Never	Rarely	Monthly	Weekly	Daily
Corridor Learning Niches and benches	8 35%	5 22%	2 9%	4 17%	4 17%
Library	3 13%	3 13%	2 8%	14 58%	2 8%
Upper side of Hedge	13 59%	4 18%	3 14%	2 9%	0 0%
Lower side of Hedge	12 57%	3 14%	2 10%	2 10%	2 10%
Cloud Commons	9 38%	9 38%	3 13%	2 8%	1 4%
Gymnasium	4 17%	3 13%	1 4%	12 50%	4 17%
Collaboration Commons	9 38%	8 33%	2 8%	4 17%	1 4%
Creativity walls (magnetic whiteboards at slide)	14 64%	7 32%	1 5%	0 0%	0 0%
Slide	5 23%	8 36%	3 14%	2 9%	4 18%
Dining Commons (for other than dining)	9 39%	8 35%	3 13%	1 4%	2 9%

9 Comment(s)

white board walls seem like a good idea but they are not really used. I would prefer wall space for student art

Afraid/discouraged to use the hedge because of noise concerns

Hedge-Art display

The hallway learning doesn't make sense when classes from all different grade levels are walking to and from encores/lunch/recess throughout the day. Especially hallway learning by hedge- the dining commons presents

The slide is WAY too loud and not appropriate for a learning environment. It is Very loud in the classrooms surrounding the slide and extremely distracting to learning the classrooms nearby

The creativity walls did not take into account the height of my students. Plus, it looks cute but it doesn't lend itself to displaying student work. It seemed you were designing a museum instead of a school with this feature.

We display art work on the hedges using wooden easels.

Hedge?

The spaces are technically used for ExDay, but not the way they "should" be for learning during the school day. It gets very loud in common spaces and it makes it difficult to use collab commons and cloud commons. I wish we had more dividers or ways to partition spaces when needed. While top hedge is pretty, it is more of a display than leaning space. We need chairs and places to sit for kids to work on top hedge. It would be helpful to have a teacher help you design your next school.

Grounds & Outdoor Spaces How frequently do your students use the following outdoor spaces in your school & grounds?

	Never	Rarely	Monthly	Weekly	Daily
Veranda	7 29%	6 25%	8 33%	3 13%	0 0%
School Garden	11 46%	10 42%	3 13%	0 0%	0 0%
Bioretention Gardens	15 63%	8 33%	0 0%	1 4%	0 0%
Front Plaza Solar Calendar	7 30%	14 61%	1 4%	1 4%	0 0%
Solar Lab	16 67%	8 33%	0 0%	0 0%	0 0%
Kinderhouse slate chalkboards	17 74%	2 9%	0 0%	3 13%	1 4%
Other - Please explain	5 100%	0 0%	0 0%	0 0%	0 0%

6 Comment(s)

I use these spaces by grade level throughout the year as needed, based on lesson connections

Solar Lab is not functional.

-Veranda has been great for recess when it rains! Also really nice to eat outside with the class sometimes.

I need to be taught how to use these spaces and then I'd use them.

Currently I have just had students doing work in the room, but as the weather gets warmer we might travel outside or to other areas of the school.

Staff needs more training on how to use the spaces. We want to use them but are intimidated.

Thermal Comfort

Thermal Comfort Please indicate how satisfied you are with the temperature of your primary workspace:

	Number of Response(s)	Response Ratio
Very Dissatisfied	2	5.7%
Dissatisfied	1	2.8%
Somewhat Dissatisfied	4	11.4%
Neither Dissatisfied nor Satisfied	2	5.7%
Somewhat Satisfied	2	5.7%
Satisfied	7	20.0%
Very Satisfied	9	25.7%
No Responses	8	22.8%
Total	35	100%

No Comment(s)

You have said that you are dissatisfied with the temperature in your primary workspace. which of the following contribute to your dissatisfaction? (check all that apply)

	Number of Response(s)	Response Ratio
In warm / hot weather, classroom is often too hot	3	42.8%
In warm / hot weather, classroom is often too cold	1	14.2%
In cool / cold weather, classroom is often too hot	3	42.8%
In cool / cold weather, classroom is often too cold	4	57.1%
Total	7	100%

No Comment(s)

When is this most often a problem? (check all that apply)

	Number of Response(s)	Response Ratio
Morning (6am -11am)	3	42.8%
Mid-day (11am - 2pm)	1	14.2%
Afternoon (2pm - 5pm)	1	14.2%
Evening (5pm - 11pm)	1	14.2%
Night (11pm - 6am)	1	14.2%
All the time	3	42.8%
Random times	3	42.8%
Other	0	0.0%
Total	7	100%

No Comment(s)

How would you best describe the source of the discomfort? (check all the apply)

	Number of Response(s)	Response Ratio
Humidity too high (damp)	2	33.3%
Humidity too low (dry)	0	0.0%
Air movement too high	1	16.6%
Air movement too low	2	33.3%
Incoming sun	1	16.6%
Hot / cold surrounding surfaces (floor, ceiling, walls or windows)	0	0.0%
Drafts from windows	1	16.6%
Drafts from vents	1	16.6%
My classroom is hotter / colder than other areas	3	50.0%
I couldn't control my own thermostat	2	33.3%
Thermostat adjusted by other people	0	0.0%
Heating / cooling system does not respond quickly enough to the	2	33.3%
Other	1	16.6%
Total	6	100%

1 Comment(s)

temp doesn't change when I adjust thermostat

Please describe any other issues related to being too hot or too cold in your classroom:

3 Comment(s)

I do not have control of the Big Ass Fans in the gym to adjust speed or to turn on/off in the evenings. It is so hot in my room in the mornings but it has gotten better recently.

It is sometimes random. I adjust thermostat moving the lever up or down and push the button, but nothing happens. Sometimes room next to me is hot and she has to open a window and my room is freezing.

Energy Use

If Discovery Elementary reduced the number of refrigerators available in the building to reduce energy use, would you be willing to walk further to access your perishable goods?

	Number of Response(s)	Response Ratio
Yes	12	34.2%
No	11	31.4%
No Responses	12	34.2%
Total	35	100%

6 Comment(s)

I find it odd that this is your priority.

You could have 1 fridge /kitchen are per floor. 4 seems like a lot

I don't have time to walk further. I would have to buy a cooler.

I never use the refrigerators.

If I had more time for lunch

I don't think they should be too much farther away because sometimes we only have a couple of minutes to get food between meetings/teaching and the hallways are long. To grab food, warm it up and run back takes a lot of time.

Movement & Health

Water fountains in the classroom.

	Number of Response(s)	Response Ratio
I am aware of this health-promoting feature	16	76.1%
This feature stimulates teachable moments	4	19.0%
I incorporate this feature in my curriculum	1	4.7%
I see children using this feature	16	76.1%
This feature stimulates behavior change	2	9.5%
This feature contributes to student learning	4	19.0%
Total	21	100%

Hand washing station in the Dining Commons.

	Number of Response(s)	Response Ratio
I am aware of this health-promoting feature	18	81.8%
This feature stimulates teachable moments	6	27.2%
I incorporate this feature in my curriculum	2	9.0%
I see children using this feature	11	50.0%
This feature stimulates behavior change	3	13.6%
This feature contributes to student learning	4	18.1%
Total	22	100%

Water fountains in the corridors.

	Number of Response(s)	Response Ratio
I am aware of this health-promoting feature	19	86.3%
This feature stimulates teachable moments	1	4.5%
I incorporate this feature in my curriculum	1	4.5%
I see children using this feature	16	72.7%
This feature stimulates behavior change	1	4.5%
This feature contributes to student learning	3	13.6%
Total	22	100%

School garden

	Number of Response(s)	Response Ratio
I am aware of this health-promoting feature	18	90.0%
This feature stimulates teachable moments	7	35.0%
I incorporate this feature in my curriculum	3	15.0%
I see children using this feature	7	35.0%
This feature stimulates behavior change	3	15.0%
This feature contributes to student learning	8	40.0%
Total	20	100%

Please share your thoughts on the health-promoting features of your school.**5 Response(s)**

I have really enjoyed using this space for learning. It's close, easy to use, enjoyable learning space for all. Great for Science/Art connections, observational drawing, etc.

-The butterfly garden is quite cut-off from the rest of the school, and isn't used often by the K classes.

-The handwashing station in the dining commons is pretty high for younger students.

My Kindergarteners don't use the sink in the dining commons because it is too high for them to reach and there is not enough time for them to all wash hands.

The garden is hidden away. It could or should be visible from dining commons. How about a vertical garden inside the dining commons? See:

<http://www.newyorker.com/magazine/2017/01/09/the-vertical-farm>

The features are there, but they don't always work. There are always spills so a mat under the fountains would be helpful.

Flexible furniture: tables, chairs, and teacher caddies with casters

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	19	82.6%
This feature stimulates teachable moments	5	21.7%
I incorporate this feature in my curriculum	5	21.7%
I see children using this feature	16	69.5%
This feature stimulates behavior change	5	21.7%
This feature contributes to student learning	7	30.4%
Total	23	100%

Furniture: Standup - sitdown tables and desks, Flip tables

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	19	79.1%
This feature stimulates teachable moments	3	12.5%
I incorporate this feature in my curriculum	4	16.6%
I see children using this feature	12	50.0%
This feature stimulates behavior change	4	16.6%
This feature contributes to student learning	6	25.0%
Total	24	100%

Furniture: Mobile whiteboards / monitor

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	18	85.7%
This feature stimulates teachable moments	4	19.0%
I incorporate this feature in my curriculum	4	19.0%
I see children using this feature	8	38.0%
This feature stimulates behavior change	2	9.5%
This feature contributes to student learning	5	23.8%
Total	21	100%

Furniture: Wiggle stools, swivel chairs and soft seating

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	21	87.5%
This feature stimulates teachable moments	10	41.6%
I incorporate this feature in my curriculum	7	29.1%
I see children using this feature	17	70.8%
This feature stimulates behavior change	10	41.6%
This feature contributes to student learning	8	33.3%
Total	24	100%

Veranda

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	19	86.3%
This feature stimulates teachable moments	3	13.6%
I incorporate this feature in my curriculum	2	9.0%
I see children using this feature	12	54.5%
This feature stimulates behavior change	1	4.5%
This feature contributes to student learning	3	13.6%
Total	22	100%

Solar Calendar

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	20	86.9%
This feature stimulates teachable moments	9	39.1%
I incorporate this feature in my curriculum	8	34.7%
I see children using this feature	10	43.4%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	7	30.4%
Total	23	100%

Turf play area adjacent to Dining

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	19	86.3%
This feature stimulates teachable moments	5	22.7%
I incorporate this feature in my curriculum	2	9.0%
I see children using this feature	15	68.1%
This feature stimulates behavior change	2	9.0%
This feature contributes to student learning	3	13.6%
Total	22	100%

Slide

	Number of Response(s)	Response Ratio
I am aware of this movement-promoting feature	20	90.9%
This feature stimulates teachable moments	4	18.1%
I incorporate this feature in my curriculum	4	18.1%
I see children using this feature	15	68.1%
This feature stimulates behavior change	4	18.1%
This feature contributes to student learning	4	18.1%
Total	22	100%

Please share your thoughts on the movement-promoting features of your school.

8 Response(s)

we have too much seating with movement. I understand this is a helpful option for some students but I think the round spinning stools only cause more playful distractions than help. It seems the focus with dome of the furniture was on fun and cool and not so much practical.

The furniture in the building is not adequate for student learning. The desks need a drawer for students to put their supplies in, the desks slide easily, students fall out of their chairs all the time. The wobble chairs are terrible and students fall out of those as well. The teacher desk needs more drawers and I wish I had a kidney table!

It would have been nice to have furniture/desks that have on site storage. We WASTE so much time each day having the kids put things away in their cubby as we switch between coursework/assignments!

-Moveable furniture is not that helpful in kindergarten! Things need to be simpler and more stationary.

The moveable furniture is a NIGHTMARE for primary teachers. The slide is loud and unsafe for 1 teacher to manage 26 kids going down one at a time and not having any supervision on the bottom or top. The turf is great but too small for a grade level to play on or eat at.

the wiggle stools are terrible when I am trying to teach a guided reading or guided math lesson.

The kids move around so much that I can't think and they get little work done. The stools are fine as a seating choice for students doing independent work.

The turf play area is a menace. It has serious injury written all over it. There are too many hard stone walls, sharp edges, stairs, attractive nuisances, etc. to make it a safe place for older students to play.

The questions are only phrased for positive responses. Teachable moments/behavior changes can refer to negative ones. Hokki stools are not best for all kids in lower grades for reading group. Some people shelved stools to use non moving ones instead. In my class, I had to get rid of wheeled chairs because lack of focus. Slide needs a mat at end.

Educational signage: Sign-your-name promenade wall

	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	91.3%
This feature stimulates teachable moments	9	39.1%
I incorporate this feature in my curriculum	6	26.0%
I see children using this feature	12	52.1%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	8	34.7%
Total	23	100%

Educational signage: grade level icons in corridors

	Number of Response(s)	Response Ratio
I am aware of this wayfinding-promoting feature	21	91.3%
This feature stimulates teachable moments	10	43.4%
I incorporate this feature in my curriculum	6	26.0%
I see children using this feature	9	39.1%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	10	43.4%
Total	23	100%

Educational signage: grade level signage in corridors		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	91.3%
This feature stimulates teachable moments	10	43.4%
I incorporate this feature in my curriculum	5	21.7%
I see children using this feature	6	26.0%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	8	34.7%
Total	23	100%

Educational signage: classroom signage		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	91.3%
This feature stimulates teachable moments	10	43.4%
I incorporate this feature in my curriculum	8	34.7%
I see children using this feature	6	26.0%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	9	39.1%
Total	23	100%

Educational signage: animal and bird silhouettes/facts		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	91.3%
This feature stimulates teachable moments	9	39.1%
I incorporate this feature in my curriculum	3	13.0%
I see children using this feature	5	21.7%
This feature stimulates behavior change	1	4.3%
This feature contributes to student learning	8	34.7%
Total	23	100%

Educational signage: habitats in Hedge		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	19	90.4%
This feature stimulates teachable moments	8	38.0%
I incorporate this feature in my curriculum	3	14.2%
I see children using this feature	10	47.6%
This feature stimulates behavior change	3	14.2%
This feature contributes to student learning	6	28.5%
Total	21	100%

Educational signage: exterior signs		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	91.3%
This feature stimulates teachable moments	10	43.4%
I incorporate this feature in my curriculum	3	13.0%
I see children using this feature	6	26.0%
This feature stimulates behavior change	2	8.6%
This feature contributes to student learning	10	43.4%
Total	23	100%

Solar lab		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	21	100.0%
This feature stimulates teachable moments	7	33.3%
I incorporate this feature in my curriculum	1	4.7%
I see children using this feature	1	4.7%
This feature stimulates behavior change	1	4.7%
This feature contributes to student learning	6	28.5%
Total	21	100%

Bio-retention areas		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	20	100.0%
This feature stimulates teachable moments	5	25.0%
I incorporate this feature in my curriculum	1	5.0%
I see children using this feature	1	5.0%
This feature stimulates behavior change	1	5.0%
This feature contributes to student learning	6	30.0%
Total	20	100%

Other feature - please explain		
	Number of Response(s)	Response Ratio
I am aware of this stewardship-promoting feature	2	33.3%
This feature stimulates teachable moments	0	0.0%
I incorporate this feature in my curriculum	0	0.0%
I see children using this feature	0	0.0%
This feature stimulates behavior change	0	0.0%
This feature contributes to student learning	0	0.0%
Total	6	100%

4 Comment(s)

Can't rate the solar lab. It is not currently functional.

I'd love to understand the building more. Maybe in the future, PD can be offered.

Still waiting for the solar lab to be up and running....

This survey is very long...

If you feel any of the features above stimulate behavior change, please explain.

1 Response(s)

I really notice the [2e] and some students with autism being fixated on signs outside of spaces and it helps them cope, recall the area, and lead to conversation.

Classroom - General Characteristics Please indicate how satisfied you are with the following characteristics of your primary workspace:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Location	2 7%	1 4%	1 4%	0 0%	1 4%	7 26%	15 56%
Size	1 4%	2 7%	3 11%	0 0%	5 19%	5 19%	11 41%
Security	3 11%	3 11%	5 19%	0 0%	5 19%	4 15%	7 26%
Safety	3 11%	1 4%	3 11%	2 7%	4 15%	5 19%	9 33%
Amount of Storage	5 19%	1 4%	2 7%	1 4%	5 19%	5 19%	8 30%
Design of Storage	5 19%	1 4%	4 15%	0 0%	5 19%	6 22%	6 22%
Pin Up Surface	10 37%	6 22%	4 15%	1 4%	2 7%	4 15%	0 0%

14 Comment(s)

The county wide special education classrooms (functional life skills and the autism program--MIPA) really require locking closets that can accommodate large medical equipment and other large learning materials. While I have made the space work and my kids take breaks out in the rest of the building, my special education classroom is a space where children spend their whole day--it would've been nice to have windows for the kids to see the outside world in their learning space.

I am in an office and the furniture is cumbersome to move as well as in not very conducive to collaboration that I do daily with teachers. Likewise, there is no whiteboard space which would be helpful when discussing strategies and modeling for teachers.

-Foldable walls are not very magnetic, not able to pin anything to them (only glue guns work)

Unable to hang much in the classroom. Also cabinets need more shelves and some way to get to the higher shelves.

Could use cork board in this room

There should be built in shelves for classroom libraries, larger cubby spaces, and more bulletin board space in the classroom and the hallways.

I feel like safety and security go hand in hand. The amount of storage is tough because the cabinets don't have enough shelves so I can only stack items, making it difficult to put them away/pull them out. A storage closet, even if very small, would have been more useful. Also, I don't have a place to hang learning anchors such as the alphabet strip, which is crucial to primary students. The building is beautiful and I love working here, but the storage is lacking.

There are no doors to separate the dining commons from the classrooms right next door, making lunch time very loud for students in my classroom doing work. The window space is great and refreshing but in an emergency, it takes WAY too long to lower every single blackout shade...

There is NO storage space that is accessible for the children to reach/keep their belongings, ie notebooks, textbooks, folders. The room have ZERO place for hanging student work and anchor charts for resources. The cabinets are WAY To high for Because cubbies cover most of the wall surfaces, there is little room to hang student work or student anchor charts to aid their learning.

The kiln room which connects the 2 art rooms is a very narrow space. I would ideally like to have a large area in there, where there could be more space to pass through and store clay carts.

The cabinets and big shelf are fantastic. I really, really wish I had an adequate file cabinet. I still store paper. The cubbies for the kids are of adequate size but the fact that they are one on top of another and that there are 4 in a corner cause behavior issues. The kids taking stuff out of the top cubbies step on the kids taking stuff out of the bottom cubbies. The crowd in the corner ends up bickering over space to stand. I have to manage dismissal time very carefully.

Room layout is awkward or, more to the point, inconsistent among grade 5 classrooms. Apportioning of, say, whiteboards is lopsided. Some have more cork boards, too. Indeed, the layout of white boards/cork boards (or their positioning) seems to have been an afterthought. It's frustrating.

As a Resource Teacher for Gifted, I realize that many people don't have a room but an office in the county. However, since APS does not pull-out small groups, but works with entire classes, I have entire classes come to my room, use collaboration spaces, or go to their rooms. It's difficult fitting 25 kids in my room, but I do it. I love the light in my space and the location. It gets very loud though because of the stairs, the echo, and there being no door to the Blue Sky or Cloud Commons

Connection with the OutdoorsPlease indicate how satisfied you are with the following characteristics of your classroom:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Natural Lighting (Daylighting)	2 7%	1 4%	0 0%	0 0%	0 0%	6 22%	18 67%
Views to the Outdoors	2 8%	2 8%	1 4%	1 4%	1 4%	5 19%	14 54%
Physical Connection and Access to Outdoor Spaces	1 4%	1 4%	1 4%	5 19%	2 7%	4 15%	13 48%
Natural Ventilation / Operable Windows (If Applicable)	4 17%	1 4%	1 4%	2 8%	5 21%	4 17%	7 29%

9 Comment(s)

See above comment. My room is a classroom, not a resource room, meaning my children are in this room without windows (or even one of the cool ceiling vent lights.

I understand the need to maximize space, but it would have been nice for the resource rooms to have windows.

I LOVE the natural daylight.

Very Positive but studio classrooms are WAY to open and distracting for student in the primary grade levels.

there is great natural light coming into the room. I do use the blinds on a daily bases because the sun is very bright and will shine in and cast shadows because the the orange/ yellow structures on the outside of the windows. The blinds still allow for natural light that shines into the builds.

I think I only have one small operable window. I have never operated it as the room temperature is always pleasant.

Again, windows/screens could not try harder to make me not want to open and use them (and maybe that's the point?)

One of the windows is not opening in Rm 232

I LOVE the light!

Lighting, Electrical, and Mechanical DesignPlease indicate how satisfied you are with the following characteristics of your primary workspace:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Artificial Lighting	1 4%	0 0%	0 0%	1 4%	3 11%	11 41%	11 41%
Air Quality	1 4%	0 0%	0 0%	1 4%	4 15%	11 41%	10 37%
Acoustics - noise from HVAC	3 12%	1 4%	0 0%	2 8%	3 12%	7 28%	9 36%
Acoustics - noise from surroundings	6 22%	2 7%	8 30%	0 0%	4 15%	2 7%	5 19%
Acoustics - quality of sound in the room	3 11%	1 4%	2 7%	1 4%	2 7%	6 22%	12 44%
Electrical Outlet Availability	2 7%	3 11%	2 7%	0 0%	6 22%	8 30%	6 22%
WiFi Connectivity	1 4%	1 4%	3 11%	0 0%	2 7%	8 30%	12 44%
Data Outlets	2 7%	0 0%	1 4%	7 26%	3 11%	8 30%	6 22%
Lighting Controls	2 7%	1 4%	0 0%	2 7%	0 0%	9 33%	13 48%
AV Equipment	1 4%	0 0%	0 0%	8 30%	1 4%	11 41%	6 22%

10 Comment(s)

it is so loud in the big stair area and dining commons

The very heavy furniture in my space can only be arranged in certain ways. The main outlet needed is hidden behind the furniture which makes it very difficult to access. Likewise, when WiFi is down it mostly seems to effect my end of the building.

-Can hear conversations through the windowed walls to hallway, slide is extremely loud and echoes into the hallways. VERY quiet room.

Noise level between floors music/art could be better. Could have hanging outlets that come down from ceiling in art rooms

Dining commons noise level affects kindergarten classrooms and learning

The entire school is WAY too noisy and very distracting to a learning environment for ALL students, including students with distractibility

When extended day is outside my classroom it can be pretty loud even with a closed door because the kids are being loud. If a class is working in the hedge with indoor voices I have no trouble. Student voices inside my classroom seem amplified. The voices of kids in the nooks carry really well across the room. The high sound level of voices was one of the most difficult things to get used to compared to my old classroom.

When working along in classroom. I have to jump up and down and wave arms to get the lights back on. Also, on entering a dark room, it's never clear if the lights are off or just dormant; I have to switch them on/off AND jump up and down to figure out how to power them on. Annoying.

The lights turn off all the time when I am meeting with parents or teachers--It's frustrating. The internet frequently goes out in my room, Blue Sky wing, and office below. There is no slack for me to hook my laptop to cord to the smart panel-- it has to be in one spot. I wish it were longer or on other side. It is very loud in my room from all outside noise. It is hard testing kids 1-1 because of noise level from outside. I don't have a locking space for my wallet.

Furniture and Finishes Please indicate how satisfied you are with the following characteristics of your primary workspace:

	Very Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Very Satisfied
Furniture	5 19%	4 15%	3 11%	2 7%	6 22%
Finishes (floors, walls, ceiling materials, etc)	4 15%	1 4%	1 4%	1 4%	2 8%
Color Scheme	1 4%	0 0%	2 8%	2 8%	1 4%
Cleanability	1 4%	0 0%	1 4%	0 0%	4 15%
White Boards	2 8%	2 8%	3 12%	2 8%	4 16%
Display Boards, and Tack surfaces	10 38%	5 19%	3 12%	0 0%	2 8%

14 Comment(s)

The offices would be better equipped with more whiteboard space as well as bulletin board space.

I'd like more whiteboard and display board space since I cannot put anything directly on the wall

Quality of white boards is great, but need more. Need more display surfaces.

couch doesn't come as clean as it would seem in the artroom

Walls-the paint peels off so I am unable to hang anything. This is crucial to the primary grades.

-Not enough white board space in Kinder classrooms/is broken up into two small boards instead of a nice large board.

-The size of the work tables is quite small, and wobble stools are only meant for students who actually need to wobble. They are distracting for others (but we have no choice to use them because of the need for seating at small group tables)

-The "amoeba" table has far less surface area than the original kidney bean table, making small group work much more cramped

The furniture is not appropriate for primary students. There is no storage, the movable desk are a nightmare for management and take up WAY to much space in the small rooms with 26 students. There needs to be space for storage in the desk for students materials. There are no walls that are available for hanging and posting work in the studio rooms. The paint comes off of the walls when you stick something to it and primary grades need to have lots of things on walls for resources.

I am in the classroom with the movable wall and the whiteboard part holds magnets well but the other surface does not
The floors in the art room had a rough texture and was very hard to mop, that was fixed over the summer.

The natural cork boards are pretty but they don't hold a tack very well. Staples work fine. The tables should have adjustable heights. These Kindergarten tables are too small both in surface area and height. Some K kids are quite tall. Ideally, I would have two kidney tables in the room also, each with six stools that don't wobble. The amoeba tables are an awkward shape for teaching six children which is what I and my assistant do most of the time. Wobbly stools for regular tables are fine. Architecture has long embraced the square, the circle and the rectangle. When it comes to desks, let's keep it simple next time. The concave/convex eyebrow-shaped desks require constant repositioning. They're just goofy and not terribly space-efficient. I'd throw them out the window, if the window only opened more than 2 inches.

I would like more boards or cork strips

I wish tables don't have wheels.

I think a board is missing next to my white board or the cord cover was installed wrong. The painters were sloppy and have uneven lines on the ceiling. The colors are beautiful and calming.

Maintenance, Technology, and Special Features Please indicate how satisfied you are with the following characteristics of your primary workspace:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Maintenance	1 4%	0 0%	0 0%	0 0%	3 12%	12 46%	10 38%
Technology	1 4%	0 0%	0 0%	0 0%	1 4%	7 29%	15 63%
Operable Partitions	2 8%	2 8%	1 4%	10 42%	1 4%	4 17%	4 17%
Bathroom (if accessible directly to your classroom)	3 13%	0 0%	0 0%	8 35%	3 13%	4 17%	5 22%
Window shades	1 4%	1 4%	0 0%	3 11%	1 4%	11 41%	10 37%

9 Comment(s)

Partition's seal was broken, has not been fixed and results in transfer of sound between classes

The partitions seem to stick at the top.

love the shades

Teacher bathrooms SHOULD NOT be locked.

The TVs in so many areas of the building seem excessive.

There is no bathroom in a second grade classroom and there still needs to be. 2nd graders are not responsible enough yet to leave a room and go to the restroom and often still have accidents.

In the case of a lockdown it is unrealistic to think I could get all the shades down. Fortunately, the bathroom is big enough for all my Kindergarteners and two adults. This is where I go during the drills because I think it's the most realistic scenario. I love all the glass and don't want to live my life hidden away.

There are too few bathrooms available for staff. Next time, make it a double!

Why is there no window shade on window above door? Shouldn't all glass be covered for a lock down?

Overall Satisfaction Please indicate how satisfied you are with your primary space overall:

	Number of Response(s)	Response Ratio
Very Dissatisfied	3	8.5%
Somewhat Dissatisfied	1	2.8%
Neither Dissatisfied nor Satisfied	0	0.0%
Somewhat Satisfied	9	25.7%
Very Satisfied	13	37.1%
No Responses	9	25.7%
Total	35	100%

5 Comment(s)

I love this building, I love my job!

This is the worst classroom design I have ever had to manage and figure out. IT is like a puzzle that is missing the pieces that complete the main idea of the puzzle. There needs to be a conversation with teachers before architects design a primary classroom and teachers should have input on the furniture choices and amount of storage for student materials.

I feel lucky to work in such a beautiful building . I do miss nature, however. I am so glad I have a tree right outside my door at least. I do miss the forest of trees I used to look at and the grass I could walk out onto at Jamestown Elementary.

My primary overall? The overalls I wear every day? Huh? Sorry, punchy. I am very satisfied with my primary overall workspace. My room is bright, open, anything but stuffy and overall very cheery.

I love Discovery as a whole. I love the building. I teach in all parts of the building. I love my room. I do have ideas on how to make it better. I do wish I had a locking cabinet for my valuables-purse etc. in my space.

Overall Satisfaction Please indicate how satisfied you are with your primary workspace's ability to provide for an appropriate variety of learning styles and activities:

	Number of Response(s)	Response Ratio
Very Dissatisfied	1	2.8%
Somewhat Dissatisfied	2	5.7%
Neither Dissatisfied nor Satisfied	3	8.5%
Somewhat Satisfied	10	28.5%
Very Satisfied	11	31.4%
No Responses	8	22.8%
Total	35	100%

3 Comment(s)

You can not see all areas of the room at all times, which causes me to not use all areas at the same time.

My classroom is wonderful!

I'd appreciate more counter space/more lab-style tables (ie, islands with a slate top) as I teach science. A double heavy-duty sink would be nice too for science. And the hot water heater is so energy-efficient it only produces cold water.

School Building - General Layout Please indicate how satisfied you are with the general layout of your school building:

	Very Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Very Satisfied
Efficient & safe pedestrian flow	0 0%	0 0%	3 13%	1 4%	13 54%
Administrative ability to control access & monitor security	1 4%	2 9%	1 4%	3 13%	9 39%
Location & organization of classroom wings	1 4%	0 0%	2 8%	3 12%	11 44%
Corridor width	0 0%	1 4%	0 0%	1 4%	14 56%

7 Comment(s)

What happens we we have more than 2 grade levels with 5 or more classes?

Would be good to plan classroom wings to accommodate growing class sizes and more than 4 classes per grade music and art wish they were on the same floor for collaboration

The kinder hallway doesn't have a faculty bathroom or kitchenette on it so it takes more time to walk to those locations.

The slide is hard to manage because you can not be at both ends at the same time and can not see students at the top and the bottom. If there is a way to make this in an area that you can monitor at least some of both levels that would be great!

I never see my Kindergarten teammates from the other kinderhaus except when we meet for PLC meetings. I wish our classrooms could be across from each other. I often work in the hedge with small groups of students. If a class comes down the upper hedge they are so loud I have to wait until they have passed before I can continue working with my students.

It's like working on an aircraft carrier: lots of walking (actually, it's only the length of a destroyer; we checked). it works great for solar exposure, but it's heckuva walk to the main office. Corridors feel cramped. Also, there are too many access points (or rather, too many that are in daily use).

School Building - Characteristics Please indicate how satisfied you are with the following characteristics of your school building:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Building Cleanliness & Maintenance	0 0%	0 0%	0 0%	0 0%	1 4%	7 28%	17 68%
Building Security	2 8%	1 4%	1 4%	2 8%	3 12%	6 24%	10 40%
Building Safety	1 4%	0 0%	2 8%	3 13%	4 17%	6 25%	8 33%
Educational Signage (Signage, Designation of Regions in the Building,	0 0%	0 0%	1 4%	0 0%	0 0%	8 35%	14 61%
Ability to easily navigate the building	0 0%	0 0%	0 0%	2 8%	1 4%	7 29%	14 58%

4 Comment(s)

The stonework on the green steps makes me nervous. It does look nice, but how long until a child falls and hits their head.

Signage - I like most of it. I think the big main hall way could be better used for student art or grade levels to share something.

-Window space is a great thing but I think the concern for safety is still valid. In an emergency, our school is so overly exposed by windows

Again, you did all the work and made these like we'd find in a museum. Instead, I'd prefer if the writing could be changed out so each year the students could study and revise the writing.

The large amounts of glass are beautiful but make one pause every time you read about a nut with a gun.

School Building - Specialty SpacesPlease indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Art Rooms	0 0%	0 0%	1 4%	1 4%	1 4%	6 24%	16 64%
Music Rooms	0 0%	0 0%	1 4%	1 4%	3 12%	9 36%	11 44%
Library	1 4%	0 0%	1 4%	0 0%	2 8%	7 28%	14 56%
Gymnasium	0 0%	0 0%	0 0%	1 4%	0 0%	7 28%	17 68%
Stage	1 4%	0 0%	2 8%	2 8%	2 8%	8 33%	9 38%

5 Comment(s)

Music room - more windows

Library has a noise issue with traffic coming to dining commons

Stage could incorporate more seating, either on the stage itself or at its front, to allow for seating during sporting and other events (ie events on the gym floor).

The stage is very small and lacks a front-stage curtain.

The music room gets loud behind the stage. It also seems to be the space that was left out of the pretty color scheme of every other space and we have instrumental music there. The library gets really loud with the sliding door-- it's too bad it doesn't seal better. We had to move staff meetings because of the noise there.

School Building - Common AreasPlease indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Professional work spaces (next to	3	3	3	4	3	5	4

kitchenettes)	12%	12%	12%	16%	12%	20%	16%
Kitchnettes	0	0	0	0	3	9	13
	0%	0%	0%	0%	12%	36%	52%
Blue Sky Studio	1	0	1	3	2	5	13
	4%	0%	4%	12%	8%	20%	52%
Conference Rooms	0	0	0	1	5	7	12
	0%	0%	0%	4%	20%	28%	48%
Dining Commons	3	2	3	3	2	5	7
	12%	8%	12%	12%	8%	20%	28%
Cloud Commons	3	1	1	3	2	7	8
	12%	4%	4%	12%	8%	28%	32%
Collaboration Commons	2	1	2	5	1	5	9
	8%	4%	8%	20%	4%	20%	36%
Corridors & stairs	0	2	1	3	5	8	6
	0%	8%	4%	12%	20%	32%	24%
Public Restrooms	1	1	3	3	1	9	7
	4%	4%	12%	12%	4%	36%	28%
Teacher Restrooms	1	2	2	2	2	6	10
	4%	8%	8%	8%	8%	24%	40%

8 Comment(s)

Professional Work Spaces next to kitchenettes - were a big miss. These make sense for a high school not an elem school. What we need is more storage apace for grade levels and a 2nd workroom on the first floor.

Dining Commons - like the washing hands station. I want doors! The noise is loud and the furniture looks nice but far from practical. Cloud Commons too loud. It needs a glass wall. Could you carve a Teachers' lounge out of out huge kitchen space?

Professional work spaces have become storage for teacher's unwanted things. I don't like that. Also, using the collaboration commons can get quite loud and distract 4th and 5th grade classes.

The acoustics in the fishbowl conferences are not good. When curtains are closed, it is too claustrophobic. MediaScape tables in Collab Commons are frequently not working.

Some of the stalls have gaps which don't allow for enough privacy

-Professional work spaces are too cut-off from flow of teachers

1. The professional work spaces next to the kitchenettes are currently used as storage, not as a gathering place. As the school grows I think this might change if people have to share rooms 2. clouds commons in very loud with the steps and the hallway leading to it. 3. Stairwells can get very loud, there is nothing to absorb the sound 4. Teacher bathroom keys and locks are not great, there should be a key to get into it. There should just be a lock on the inside so people can not get.

Dining commons could use a hand-washing island or another solution to ease crowding/promote use.

And we could use more teacher bathrooms.

Why do you need a key for restrooms?!? It's a pain for staff and subs and parents! It's awkward that boys & girls see each other (then play) washing hands together. Can't it say "staff" instead of "women/men" for adults? It's 2017 w/gender equality!

Need locking cupboards for storage in work spaces. Need way to block off sound in Cloud Commons & Collab. commons.

Stairways are loud! It's hard having an office at end and walking though blue sky meetings-- better layout needed.

School Building & Grounds - Outdoor Spaces Please indicate how satisfied you are with the following spaces of your school building (i.e. that they are adequately sized, appropriately located, well-equipped, and conducive to intended activity or instruction:

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Veranda	0 0%	0 0%	1 4%	1 4%	6 25%	4 17%	12 50%
School Garden	1 4%	1 4%	0 0%	3 13%	2 9%	6 26%	10 43%
Bioretention Gardens	0 0%	1 4%	0 0%	4 17%	1 4%	8 33%	10 42%
Playgrounds	1 4%	5 21%	4 17%	1 4%	4 17%	4 17%	5 21%
Front Plaza Solar Calendar	0 0%	0 0%	0 0%	4 17%	3 13%	6 26%	10 43%
Solar Lab	0 0%	2 8%	0 0%	7 29%	2 8%	4 17%	9 38%
Other - Please explain	0 0%	0 0%	0 0%	1 17%	1 17%	2 33%	2 33%

7 Comment(s)

Playground is so stretched out that it is had to effectively keep an eye on kids. Benches would be a nice addition. The flow from the dining commons to the playground is horrible and very loud.

Playground is beautiful but being so spread out makes it extremely difficult to manage with many children

-Kinder playground doesn't have traditional structures like swings! It also is incredibly narrow and young students aren't able to manage their bodies well enough to not run into each other.

-The turf-like ground is great but there are no significant trees or any kind of real nature, and it gets incredibly hot in the warmer months. It's really concerning to have almost no shade provided.

I love that you can see the color panels from the second floor rooms! The students can see what they look like.

The Kindergarten play ground needs shade. It is super hot in the sun. We need a lot of adults to monitor it carefully because it is so long and the kids go around corners and out of sight. I wish the kids had more space to run and that they had more access to nature but I understand the school is built on a relatively small plot of land.

The space limitations make for a very long playground, which is hard to patrol/watch over. Placing rocks in the middle of the playspace is visually appealing but totally dumb since they pose a huge hazard. Having playspace hard against classroom windows is disruptive. We should have put the parking lot underground, and added playspace atop it...

I had recess duty for all grades. The climbing shapes are interesting, but kids get scared and can't get down w/o adult help. I'd like to see basketball or 4 square area. The tree is loved by all-- more natural outdoor stuff would be great! Shade would also be helpful during hot sun! A fort would be neat or more bridges.

School Building - Finishes + FixturesPlease indicate how satisfied you are with the following characteristics of your school building (i.e. that they are appropriate, attractive, and easy to maintain):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Corridor Floor Finishes	0 0%	0 0%	0 0%	2 8%	2 8%	12 48%	9 36%
Classroom Floor Finishes	0 0%	0 0%	0 0%	2 8%	3 12%	11 44%	9 36%
Toilet Finishes	0 0%	0 0%	0 0%	4 16%	2 8%	10 40%	9 36%
Gym Finishes	0 0%	0 0%	0 0%	2 8%	2 8%	8 32%	13 52%
Wall Surfaces	3 12%	2 8%	6 24%	1 4%	2 8%	7 28%	4 16%
Plumbing Fixtures	0 0%	1 4%	0 0%	2 8%	3 12%	10 40%	9 36%
Exterior Grounds	1 4%	1 4%	0 0%	2 8%	2 8%	7 28%	12 48%
Exterior Building Fixtures	0 0%	0 0%	0 0%	4 17%	2 8%	8 33%	10 42%

6 Comment(s)

The paint used does not withstand the use of wall space in an elementary school.

paint peels to easily need more adequate display spaces

The paint looks beautiful but the paint comes off when you take things off the walls.

The paint peels off when anything is attacked it it. We need to have wall space to put things on.

I don't have to clean these things, but they always look nice. The wonderful people who maintain our building make it look very nice.

Why aren't toilets and sinks in bathrooms automatic? All fancy energy efficient stuff and then it's manual flush... The paint scratches and comes off easily from walls. The hot water in bathroom sinks barely comes out. Sometimes the exterior grounds look like a jungle when not cut. It would be helpful to have walk through for parking median because we have to walk through jungle or around if we forget where we park.

School Building - Equipment + SystemsPlease indicate how satisfied you are with the following spaces of your school building (i.e. that they operate efficiently and effectively):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Mechanical Systems	0 0%	0 0%	1 4%	6 24%	2 8%	7 28%	9 36%
Telecom	1 4%	0 0%	1 4%	6 24%	2 8%	8 32%	7 28%
Intercom	0 0%	0 0%	0 0%	4 17%	2 8%	8 33%	10 42%
Fire Alarm	0 0%	0 0%	0 0%	4 16%	2 8%	6 24%	13 52%
Plumbing Systems	0 0%	0 0%	1 4%	5 20%	2 8%	8 32%	9 36%
General Ease of Maintenance	0 0%	0 0%	0 0%	7 28%	2 8%	7 28%	9 36%

3 Comment(s)

I don't interact with these.

The emergency buttons that are intercoms for the offices in the kinder classrooms are right next to the (frequently used) book nooks, so there have been quite a few occasions where students accidentally press them.

I often can't hear the telephone ring.

School Building - Site Design Please indicate how satisfied you are with the following characteristics of your school building (i.e. that they are safe, adequately sized, appropriately located, and operate efficiently and effectively):

	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied
Vehicular Circulation	0 0%	1 4%	0 0%	0 0%	6 24%	7 28%	11 44%
Visitor Parking	0 0%	0 0%	0 0%	1 4%	5 20%	9 36%	10 40%
Staff Parking	0 0%	0 0%	0 0%	0 0%	2 8%	11 44%	12 48%
Accessible Parking	0 0%	0 0%	0 0%	2 8%	2 8%	11 44%	10 40%
Site Lighting	0 0%	0 0%	0 0%	1 4%	4 16%	10 40%	10 40%
On-Site Play Fields	0 0%	0 0%	1 4%	2 8%	3 12%	9 36%	10 40%
Pedestrian circulation	0 0%	0 0%	0 0%	2 8%	3 12%	11 44%	9 36%

2 Comment(s)

It would be nice if there was another way out of the parking lot so not stuck behind pick up traffic at the end of the day.

The field is too far of a walk to be accessible for daily use at recess.

How satisfied are you with the design of the following spaces (and how they each support your teaching needs and meet the needs of your students)?

	Very Dissatisfied	Dissatisfied	Neither Dissatisfied nor Satisfied	Satisfied	Very Satisfied
Your Classroom	1 4%	2 8%	0 0%	9 38%	12 50%
Your School Building	0 0%	3 13%	0 0%	8 33%	13 54%
The Food Service at your School	0 0%	3 13%	5 22%	6 26%	9 39%

Do you agree that the design of your school building and grounds contribute to the following:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Teaching, learning, and spontaneous teaching (teach-able) moments	0 0%	1 4%	1 4%	13 57%	8 35%
Teacher Collaboration	0 0%	0 0%	1 4%	12 52%	10 43%
Interdisciplinary teaching and learning	0 0%	1 5%	4 18%	9 41%	8 36%
A sense of pride and well-being in staff and students	0 0%	1 4%	2 9%	10 43%	10 43%
Noticing, appreciating, and interacting with the outdoor environment	0 0%	0 0%	2 9%	13 57%	8 35%
Environmental stewardship	0 0%	0 0%	2 9%	10 43%	11 48%
Valuable outdoor resources available to the Arlington community	0 0%	2 9%	4 17%	9 39%	8 35%
Valuable indoor resources available to the Arlington community	0 0%	1 4%	5 22%	11 48%	6 26%

Do you agree that the design of your school building and grounds contribute to the following:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Teaching, learning, and spontaneous teaching (teachable moments)	0 0%	0 0%	0 0%	10 53%	9 47%
Teacher Collaboration	0 0%	0 0%	0 0%	10 53%	9 47%
Interdisciplinary teaching and learning	0 0%	1 5%	2 11%	8 42%	8 42%
A sense of pride and well-being in staff and students	0 0%	1 5%	1 5%	7 37%	10 53%
Noticing, appreciating, and interacting with the outdoor environment	0 0%	0 0%	0 0%	9 47%	10 53%
Environmental stewardship	0 0%	0 0%	0 0%	7 37%	12 63%
Valuable outdoor resources available to the Arlington community	0 0%	0 0%	2 11%	8 42%	9 47%
Valuable indoor resources available to the Arlington community	0 0%	0 0%	2 11%	9 50%	7 39%

Do you agree that the design of the building and grounds have contributed to any of the following health-related improvements:

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
General Health/Healthy Lifestyles	0 0%	0 0%	4 18%	11 50%	7 32%
Physical Education/Physical Activity	0 0%	0 0%	3 14%	11 50%	8 36%
Nutrition	0 0%	1 5%	7 32%	9 41%	5 23%
Culture of health	0 0%	1 5%	6 27%	8 36%	7 32%
Teacher Productivity	0 0%	2 10%	2 10%	11 52%	6 29%
Positive Attitude and moods in Students	0 0%	1 5%	2 9%	14 64%	5 23%
Positive Student Behavior	2 9%	3 14%	3 14%	10 45%	4 18%

What is your favorite place in the building / site?

18 Response(s)

The veranda, library

Gym

Fishbowls (teacher collaboration areas)

Center stairwell, love the openness and height. Also the front solar calendar

The Art room

The library

My classroom because of the natural daylight

Blue Sky Studio....it's like a cafe for the kids. They love it.

My classroom, as well as the open top section of the library (great for staff coffee meetings, it's nice and open but in the center of the school and right by workspaces/copiers)

Library

My large classroom with so much storage and usable space

My classroom

my classroom

The main entrance hallway

Blue Sky Studio

The Veranda.

collaboration commons

I love my classroom #242! I also love the collaborative spaces and the nooks. I want to use all the common spaces more!

What rooms / spaces do students get excited to go to? What features do students most enjoy?

17 Response(s)

The gym, the library, art

Gym, blue cloud commons

Cloud Commons

Blue Sky Studio. Collaboration Commons.

They enjoy and use all of the space in the Art room, the slide, the veranda, the playgrounds, the collaborative spaces. Learning in a relaxed and comfortable environment.

Gym

SLIDE!

Blue Sky Studio....it's like a cafe for the kids. They love it.

Playground

Playground and field

Library and hedge

the slide

They like to be outside and go to the gym the most.

library, fields, playground

slide

gym

I love the light-- in my room, the halls, etc. I also love the library, the slide, and the tree outside on the playground. I want to learn more about the solar lab so I am more excited and not so intimidated by it. I love the scrabble wall!

Do you have any additional comments about your classroom, school building, or school grounds?

10 Response(s)

No one has taken the time to teach us about this building beyond chair history

Thank you for designing a beautiful space. I would ensure that classrooms are designed based on Arlington's needs (hanging space for anchor charts, enough cubbies, storage for library books and professional supplies) and that are equitable (classrooms with full window walls have significantly less storage and hanging space)

Need multiple hooks in student cubbies (one for backpack and one for coat). Better system for charging devices.

It is a beautiful space to think, learn and wonder! I love it!

There are way too many windows and I do not feel safe with that feature and teaching with others being able to look in at all times is hard to teach. It's a distraction to the students as well to have so many windows. Before the next building is built, I think you should ask the teachers what they want. The school is not teacher friendly.

Design team should have definitely had a teacher on the team. There are several oversights because the architects appeared to be more focused on how beautiful and piece of art the building could be rather than the functionality of what an elementary school needs to be. For example, there are no spaces on the walls in the hallway to hang std work.

there is a LOT of changes that need to be made before another school is build for an elementary school and please consider these surveys from teachers who have dealt for 2 years.

Thank you for putting so much thought into our building . Please ask teachers about their preferences for furniture and storage.

Whatever happened to having a green roof?

Build in a storage space if you make a school with another scrabble wall so there is a place to organize the letters. Put dots outside major doors in ground to help lining up from recess. Dots or markers in hall for common stopping points. Lines to help stay on right side of stairs. Ball pit at end of slide!



FINAL BUILDING ENCLOSURE COMMISSIONING REPORT

DISCOVERY ELEMENTARY SCHOOL

Arlington, VA



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**DISCOVERY ELEMENTARY SCHOOL
FINAL BUILDING ENCLOSURE COMMISSIONING
REPORT**



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DISCOVERY ELEMENTARY SCHOOL FINAL BUILDING ENCLOSURE COMMISSIONING REPORT



INTRODUCTION

Gale Associates (GALE) has provided Building Enclosure Commissioning (BECx) services for the Discovery Elementary School (DES) under our contract with Heery International (Heery) and Arlington Public Schools (APS) during the construction and occupancy periods from Summer of 2014 to Fall of 2016. Gale did not perform BECx services during the design or bidding periods of the project.

The purpose of the enclosure commissioning process is to provide independent, third-party verification that the installed building enclosure systems meet or exceed the minimum performance requirements set forth by the OPR and contract documents. The building enclosure commissioning process for this project included review of the installed building enclosure systems with regards to the manufacturer's recommendations, the design requirements, and minimum acceptable industry standards. This report summarizes Gale's findings during the commissioning process; the tasks and various testing procedures performed; and any outstanding issues for future consideration by APS.

BACKGROUND INFORMATION

Discovery Elementary School is a new school facility located in Arlington, Virginia on shared property at the Williamsburg Middle School site. The building was designed to be a "net-zero energy" building, with stringent performance standards related to the building enclosure. As such commissioning was performed on the enclosure to ensure that the performance requirements established during the design were met. Formal communication and documentation of BECx team members, onsite observations, and performance tests were utilized as part of the commissioning process. The enclosure systems which were commissioned were as follows: air barrier, fenestrations, cladding systems, and roofing systems.

The general focus of the BECx process during the Construction Phase was to verify that the building enclosure systems and assemblies were installed in a manner that would achieve the Owner's Project Requirements (OPR). Since there was no formal OPR developed for the project, other than the goal of net zero energy usage, the requirements delineated in the Project Manual were considered the final metric for verification purposes.

IDENTIFICATION OF BECx TEAM, ROLES, AND RESPONSIBILITIES

The BECx Team consisted of multiple parties including the Owner, Architect of Record, Construction Manager, General Contractor, and Building Enclosure Commissioning Authority. The following matrix represents each team member and their role in the BECx process.

**DISCOVERY ELEMENTARY SCHOOL
FINAL BUILDING ENCLOSURE COMMISSIONING
REPORT**



REPRESENTING	ROLE	GENERAL RESPONSIBILITIES
APS	Owner’s Project Manager	Provide guidance and decisions for the team regarding any necessary changes to the Work that become necessary to achieve APS Building Enclosure (BE) performance goals
VMDO	Architect of Record (AOR) Construction Contract Administrator	Approve submittals and changes to design requirements; provide interpretation of specified BE requirements
Heery	Construction Manager	Assist BECxA with scheduling, coordination, and documentation of all BECx activities.
Sigal	General Contractor	Provide overall management of BE trade subcontractors. Provide direct supervision, coordination and documentation of BE subcontractors’ submittals and Quality Control activities and documentation
Gale	Building Enclosure Commissioning Authority (BECxA)	Manage the BECx process throughout construction; provide periodic site visits to verify BE contractors’ ongoing installation and QC requirements

COMMUNICATION, DOCUMENTATION AND DISTRIBUTION PROTOCOLS

The following is an outline of the procedures used for each of the major tasks and documentation efforts related to the BECx.

1. Submittals
 - a. VMDO reviewed and approved all contractor submittals. Sigal/Heery distributed approved submittals for use by the BECx Team.
 - b. Gale provided review of and advice on other than specified submittals (substitutions, value engineering, differing conditions, etc.) to Heery, VMDO, and APS upon request by Heery. VMDO made final approvals based on input from Gale.
 - c. Sigal maintained a copy of all approved BE submittals on site for periodic verification of construction by Gale.

DISCOVERY ELEMENTARY SCHOOL FINAL BUILDING ENCLOSURE COMMISSIONING REPORT



2. Scheduling:
 - a. As the primary stakeholder in controlling the project schedule, Sigal was responsible for incorporating the various BE milestone tasks such as coordination and pre-installation meetings, critical BECxA verification site visits, BE testing efforts, and non-conformance reinspections into the overall project schedule.
 - b. Gale and Heery provided input to Sigal for critical path timing of these tasks as necessary to ensure that the Work was not delayed unnecessarily.
 - c. Heery notified the BECx Team of these critical path milestones once scheduled.
 - d. Gale provided meeting minutes for specific BECx coordination meetings; Sigal/Heery were responsible for trade subcontractor pre-installation meeting minutes.
3. On Site Verification and Quality Control
 - a. Gale visited the site periodically to verify that BE trade subcontractors are installing components and systems to achieve specified requirements, and that Sigal provided the specified level of Quality Control. Gale provided a report for each periodic verification visit.
 - b. The Gale onsite monitor reported to Heery and Sigal once on site. Gale communicated any issues observed related to the trade subcontractors' personnel or work to Sigal.
 - c. Gale developed a Construction Checklist for the roof assembly which was distributed to the trade subcontractors' for their daily QC efforts.
4. Changes to the Contract Documents
 - a. VMDO approved all changes to the Contract Documents. Documentation of the change was in accordance with the Contract Documents.
 - b. Once a change was approved, Heery distributed appropriate documents to memorialize the change (RFI response, ASI, Change Order, Substitution Request approval, etc.).

COMMISSIONING RESULTS AND RECOMMENDATIONS

Based on the tasks described above, the building enclosure generally appears to be constructed in accordance with the OPR, BECxP, Contract Documents, and applicable industry standards. Multiple tests were performed during the BECx process, and the results of said tests have met the established performance requirements. Referencing responses received from the Construction Team, it is Gale's understanding that all issues log or non-compliance list items have been addressed.

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Whole building air leakage testing and thermal imaging was performed by Simpson Gumpertz & Heger (SGH), under contract to Sigal, to review the thermal performance and air leakage of the building enclosure. The overall building met the specified air leakage rate. Thermal anomalies were noted relating mainly to thermal bridging of structural elements of the building. We do not feel mitigation efforts are necessary as some thermal bridging is to be expected with the conductive materials utilized for this structure.

The IR scan of the roof identified localized thermal anomalies near drains and at limited areas of the roof perimeter. Gale's opinion is that the IR anomalies noted by SGH are not significant enough to warrant test cuts now. Based on our observations during the construction, we believe that areas of suspected wet roofing were corrected during the construction. We recommend that the areas of concern should be monitored through this winter season and into next summer.

We also recommend that APS, Heery, Sigal, and Gale should do a roof walk prior to the expiration date of the two-year roofing contractor warranty period to check all areas of the roof, with specific attention to the areas noted in the SGH testing report. Should the roofing exhibit any signs of blistering or deterioration, additional testing by IR scan and destructive test cuts should be required of the contractor under the warranty.

GENERAL MAINTENANCE RECOMMENDATIONS

The following are general recommendations for the various enclosure systems. The manufacturers should be contacted for specific maintenance or repair needs, and warranty requirements. Aside from normal degradation of materials, damage may occur due to weather events (windstorm, hailstorm, etc.). Inspection of all roof and façade areas should be performed after such an event to assess the extent of damage.

FENESTRATION SYSTEMS (INCLUDING CURTAIN WALL)

1. Clean glass surfaces with low-pressure water spray and mild detergent only. Do not pressure-wash.
2. Inspect periodically to ensure weep holes are open and draining properly. Do not close these openings.
3. Inspect periodically sealant and gasket condition. Sealants and gaskets should remain pliable and not deteriorate or chalk for several years.
4. Refer to manufacturer's product data for cleaning.
5. Utilize only skilled window installers for glass replacement and hardware replacement; use specifically workers with training in façade systems.

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MASONRY WALL SYSTEMS

1. Perform periodic inspections.
2. Determine moisture source before attempting repairs to correct moisture penetration.
3. Remove and replace damaged and or deteriorated sealants at control/movement joints.
4. Repoint with mortar joints which appear damaged deteriorated/eroded.
5. Remove any vegetative growth particularly as vegetation retains moisture and can lead to premature degradation of the masonry and moisture infiltration. that contributes to moisture penetration or deterioration of brickwork.
6. Gale does not typically recommend coating masonry as a means of repair unless other repair methods are not feasible.

ROOFING SYSTEMS

1. Perform periodic inspection of the roof membrane, tie-ins and roof drains. Check that roof drains and overflow drains are not obstructed.
2. All roof repairs must be performed by manufacturer authorized roofing contractor.
3. Limit access to the roof to authorized personnel only. Maintain a roof access log to track roof access.
4. Inspect roof after any severe winds or storms that could be expected to cause damage to the roof.
5. If a leak is discovered, and immediate attention is required, provide a temporary repair utilizing a compatible roofing material.

We trust this report will serve as the close-out document for the Building Enclosure Commissioning effort and services provided by Gale. Should additional services related to further post occupancy or warranty period services be required, please do not hesitate to contact us.

**DISCOVERY ELEMENTARY SCHOOL
FINAL BUILDING ENCLOSURE COMMISSIONING
REPORT**



Refer to Building Enclosure Commissioning Report for Appendix

CREDIT DETAILS



Project Information Forms

P1f1: Minimum Program Requirements **Approved**

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that the project complies with all Minimum Program Requirements. The project will comply with MPR 6: Must Commit to Sharing Whole-Building Energy and Water Usage Data via Option 1: Third Party Data Source. The project is located in Arlington, VA.

P1f2: Project Summary Details **Approved**

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form includes the required project summary details. There is one building in this LEED application with a total of two stories and 97,588 gross square feet.

P1f3: Occupant and Usage Data **Approved**

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form includes the required occupant and usage data. The project consists primarily of Core Learning Space: K-12, Elementary/Middle School spaces. The average users value is 95, the peak users value is 117, and the FTE value is 85. There are 430 students grade three and below, 200 students above grade three.

P1f4: Schedule and Overview Documents **Approved**

04/12/2016 **DESIGN FINAL REVIEW**

The additional documentation demonstrates compliance.

04/10/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form includes the design and construction schedule. The date of substantial completion is August 3, 2015, and the date of occupancy is August 24, 2015. Most of the required documents have been uploaded. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide a site plan drawing that clearly identifies the LEED project boundary.



Sustainable Sites

SSp1: Construction Activity Pollution Prevention **Awarded**

10/26/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project has implemented an erosion and sedimentation control (ESC) plan that conforms to the 2003 EPA Construction General Permit (CGP).

SSp2: Environmental Site Assessment **Awarded**

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project site was determined to be not contaminated by means of an ASTM Phase I Environmental Site Assessment.

SSc1: Site Selection **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project site does not meet any of the prohibited criteria.

SSc2: Development Density and Community Connectivity **Not Attempted**

POSSIBLE POINTS: 4

SSc3: Brownfield Redevelopment **Not Attempted**

POSSIBLE POINTS: 1

SSc4.1: Alternative Transportation-Public Transportation Access **Awarded: 4**

POSSIBLE POINTS: 4

ATTEMPTED: 4, DENIED: 0, PENDING: 0, AWARDED: 4

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 2: Bus Station Proximity and is located within one-quarter-mile walking distance of one or more stops for two or more public, private, or school bus lines usable by building occupants.

SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the LEED project complies with the requirements of this credit.

SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles **Awarded: 2**

POSSIBLE POINTS: 2

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

04/11/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance that the project provides preferred parking spaces for low-emitting and fuel-efficient vehicles for 5.32% of the total parking capacity.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form has been provided stating that the project provides preferred parking spaces for low-emitting and fuel-efficient vehicles for 6.38% of the total parking capacity and at least one designated carpool drop off area for low-emitting

and fuel-efficient vehicles. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The site parking plan indicates only two preferred parking spaces. Provide updated documentation confirming that at least five preferred parking spaces have been provided for low-emitting and fuel-efficient vehicles. Ensure that the location of the low-emitting and fuel-efficient vehicle parking spaces meets the LEED definition of preferred. Preferred spaces are those spaces located closest to the main entrance of the project (exclusive of spaces designed for handicapped).
2. Provide photographs or signage details of the installed signage designating a carpool drop-off area as reserved for low-emitting and fuel-efficient vehicles.

SSc4.4: Alternative Transportation-Parking Capacity

Awarded: 2

POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

04/11/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance that preferred parking spaces for car/vanpool vehicles have been provided for 6.38% of the total parking capacity.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project is pursuing Option 1. Preferred parking spaces for car/vanpool vehicles have been provided for 6.38% of the total parking capacity. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The site parking plan indicates only three preferred parking spaces. Provide documentation confirming that at least five preferred parking spaces for car/vanpool vehicles have been provided. Ensure that the location of the carpool parking spaces meets the LEED definition of preferred. Preferred spaces are those spaces located closest to the main entrance of the project (exclusive of spaces designed for handicapped).

SSc5.1: Site Development-Protect or Restore Habitat

Not Attempted

POSSIBLE POINTS: 1

SSc5.2: Site Development-Maximize Open Space

Awarded: 1

POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/11/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Case 2: Sites with No Local Zoning Requirements. The open space provided is equal to or greater than the footprint of the LEED project building. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Provide a site plan that highlights the dedicated open space. Ensure that the site plan includes the LEED project boundary. Note that the open space must be maintained for the lifespan of the LEED project building. In addition, open space may only be dedicated to one LEED project; should any of the future development pursue LEED certification, additional open space would be required to achieve this credit within that project.

SSc6.1: Stormwater Design-Quantity Control

Awarded: 1

POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

03/30/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 2, Case 1: Percentile Rain Events, Non-Zero Lot Line Projects.

SSc6.2: Stormwater Design-Quality

Not

Control

POSSIBLE POINTS: 1

Attempted**SSc7.1: Heat Island Effect, Non-Roof**

POSSIBLE POINTS: 1

Not Attempted**SSc7.2: Heat Island Effect-Roof**

POSSIBLE POINTS: 1

Awarded: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 1 and 114.9% of the building roof surface has a Solar Reflectance Index meeting the credit requirements. Although manufacturer information has not been provided for the roof pavers, credit compliance is unaffected.

SSc8: Light Pollution Reduction

POSSIBLE POINTS: 1

Not Attempted**SSc9: Site Master Plan**

POSSIBLE POINTS: 1

Not Attempted**SSc10: Joint Use of Facilities**

POSSIBLE POINTS: 1

Awarded: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/11/2016 DESIGN FINAL REVIEW


The additional documentation demonstrates compliance.

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the school-owned cafeteria, classrooms and playing fields will be shared with the surrounding community. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The Memorandum of Agreement does not indicate the cafeteria or classrooms as accessible to and available for shared use by the general public. Provide documentation confirming which spaces will be accessible to and available for shared use by the general public and describe how space availability is communicated to the public.

 **Water Efficiency**

WEp1: Water Use Reduction-20% Reduction **Awarded**

04/09/2018 CONSTRUCTION PRELIMINARY REVIEW

This prerequisite was previously earned in the Design submission. The additional documentation continues to demonstrates compliance.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has reduced potable water use by 35.56%.

WEc1: Water Efficient Landscaping **Awarded: 2**

POSSIBLE POINTS: 4
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

04/11/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance for two points.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation by 73.4% and reduce the total water used for irrigation by 73.4%. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Pif4: Schedule and Overview Documents is pending. Refer to the comments within Pif4 and provide the overall site plan showing the LEED Project boundary to confirm compliance.

WEc2: Innovative Wastewater Technologies **Not Attempted**

POSSIBLE POINTS: 2

WEc3: Water Use Reduction **Awarded: 3**

POSSIBLE POINTS: 4
ATTEMPTED: 3, DENIED: 0, PENDING: 0, AWARDED: 3

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has reduced potable water use by 36%.

WEc4: Process Water Use Reduction **Awarded: 1**

POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that refrigeration equipment that uses once-through cooling with potable water, garbage disposals, water-cooled ice machines, or food steamers with boilers have not been installed in the project. The form lists four process equipment types addressed by the WEc4 Commercial Equipment Performance Requirements table.



Energy and Atmosphere

EAp1: Fundamental Commissioning of the Building Energy Systems **Awarded**

04/09/2018 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that fundamental commissioning is complete.

EAp2: Minimum Energy Performance **Awarded**

04/03/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 1: Whole Building Energy Simulation and has achieved an energy cost savings of 100.17%. The total predicted annual energy consumption for the project is -2,856 kWh/year of electricity.

EAp3: Fundamental Refrigerant Management **Awarded**

04/09/2018 CONSTRUCTION PRELIMINARY REVIEW

The documentation continues to demonstrate compliance.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that there are no CFC-based refrigerants serving the project building.

EAc1: Optimize Energy Performance **Awarded: 19**

POSSIBLE POINTS: 19

ATTEMPTED: 19, DENIED: 0, PENDING: 0, AWARDED: 19

04/03/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project has achieved an energy cost savings of 100.17%.

EAc2: On-Site Renewable Energy **Awarded: 7**

POSSIBLE POINTS: 7

ATTEMPTED: 7, DENIED: 0, PENDING: 0, AWARDED: 7

04/03/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 1: Whole Building Energy Simulation and that the project has offset 100.47% of the total energy costs through renewable energy generated on-site.

EAc3: Enhanced Commissioning **Awarded: 2**

POSSIBLE POINTS: 2

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

04/09/2018 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that enhanced commissioning has been implemented.

EAc4: Enhanced Refrigerant Management **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/11/2016 DESIGN FINAL REVIEW

The additional documentation demonstrates compliance. The revised refrigerant impact calculation indicates that the total refrigerant impact of the LEED project is 99 per ton.

04/13/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project selected refrigerants and HVACR systems that minimize or eliminate the emission

of compounds that contribute to ozone depletion and global climate change. Additionally, all fire suppression systems in the LEED project do not use ozone-depleting substances including CFCs, HCFCs, or halons. The refrigerant impact calculation indicates that the total refrigerant impact of the LEED project is 87 per ton, which is less than the maximum allowable value of 100. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Based on the floor plans provided, there is refrigeration equipment in the kitchen (Freezer 185 and Cooler 184) that have not been accounted for in the credit calculations. This credit requires that all HVACR equipment containing one half pound of refrigerant or more must be included in the credit calculations. Provide a narrative describing all HVACR equipment containing one half pound or more of refrigerant and revise the LEED Form to include all applicable equipment in the project, including Freezer 185 and Cooler 184.

EAc5: Measurement and Verification **Awarded: 1**

POSSIBLE POINTS: 2

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/02/2018 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project complies with Option 3 and has committed to sharing whole-building energy and water data through the ENERGY STAR Portfolio Manager.

EAc6: Green Power

POSSIBLE POINTS: 2

Not Attempted



Materials and Resources

MRp1: Storage and Collection of Recyclables

Awarded

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that the project has provided appropriately sized dedicated areas for the collection and storage of materials for recycling.

MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof

POSSIBLE POINTS: 2

Not Attempted

MRc1.2: Building Reuse, Maintain 50% of Interior Non-Structural Elements

POSSIBLE POINTS: 1

Not Attempted

MRc2: Construction Waste Management

POSSIBLE POINTS: 2

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

Awarded: 2

11/02/2017 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Form states that the project has diverted 90.54% of the on-site generated construction waste from landfill.

MRc3: Materials Reuse

POSSIBLE POINTS: 2

Not Attempted

MRc4: Recycled Content

POSSIBLE POINTS: 2

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

Awarded: 2

11/02/2017 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Form states that 20.89% of the total building materials content, by value, has been manufactured using recycled materials.

MRc5: Regional Materials

POSSIBLE POINTS: 2

ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

Awarded: 2

04/25/2018 **CONSTRUCTION FINAL REVIEW**

The revised form and calculation indicates that 20.49% of the total building materials value has been regionally sourced. The documentation demonstrates compliance for two points.

11/02/2017 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Form states that 27.63% of the total building materials value includes materials and products that have been manufactured and extracted within 500 miles of the project site. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. The documentation for two products does not adequately confirm the location(s) of extraction. The manufacturer documentation for Synthetic Turf - EPDM and Asphalt Paving (BM-25.0 and SM-9.5A) do not state the location(s) of extraction. Provide documentation, such as manufacturer's letters or cut sheets, specifying that the materials listed above were manufactured and extracted within a 500 mile radius of the project. Ensure that the extraction location for the recycled content and the raw material content has been accounted for. Ensure that only the portion of the material where the extraction location is known is used toward compliance. Revise the form and LEED Materials and Resource Calculator if necessary.
2. The documentation indicates several products have the same manufacture and harvest distance (Sheating, Exterior Finish Carpentry — Planters, Wood Veneer Face Arch Cabinets Paragon, and Applied Fireproofing). It is not clear that the materials/products would be manufactured and extracted from the same location. Provide documentation, such as manufacturer's letters or cut sheets, specifying that the materials listed above were manufactured and extracted within a 500 mile radius of the project. Ensure that the extraction location for the recycled content and the raw material content

has been accounted for. Ensure that only the portion of the material where the extraction location is known is used toward compliance. Revise the form and LEED Materials and Resource Calculator if necessary.

Note for future submittals that the LEED Materials and Resource Calculator should be provided rather than a PDF copy of the spreadsheet. The calculator may be downloaded from the Credit Resources tab of this credit.

MRc6: Rapidly Renewable Materials
POSSIBLE POINTS: 1

**Not
Attempted**

MRc7: Certified Wood
POSSIBLE POINTS: 1

**Not
Attempted**



Indoor Environmental Quality

IEQp1: Minimum Indoor Air Quality Performance

Awarded

04/03/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that the project is mechanically ventilated and that the ventilation system has met the minimum requirements of ASHRAE 62.1-2007.

IEQp2: Environmental Tobacco Smoke (ETS) Control

Awarded

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that smoking is prohibited on the project site. Additionally, smoking is prohibited within the building.

IEQp3: Minimum Acoustical Performance

Awarded

04/12/2016 **DESIGN FINAL REVIEW**

The additional documentation demonstrates compliance.

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that the acoustical performance of the project meets the requirements of this prerequisite.

Reverberation time (RT) for spaces less than 20,000 cubic feet: The form indicates that for each regularly-occupied classroom and core learning space, which is smaller than 20,000 cubic feet, the RT in the space for each frequency is no more than 0.6 seconds (0.7 seconds for spaces between 10,000 and 20,000 cubic feet) using the calculation method outlined in ANSI Standard S12.60-2002 Annex C.

However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Background HVAC Noise Level: The project team has indicated compliance using ANSI Standard S12.60-2002; however, the required documentation has not been uploaded. Provide a description of the methodologies and acoustical design of the project building that will ensure compliance with ANSI Standard S12.60-2002 in classrooms and other core learning spaces. Descriptions can include, but are not limited to: placement of VAV boxes, acoustical treatment of ductwork, treatment of ceiling systems, partition construction, flooring and wall surfaces.

IEQc1: Outdoor Air Delivery Monitoring

Awarded: 1

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/13/2015 **DESIGN PRELIMINARY REVIEW**

The LEED Form states that the project is mechanically ventilated, that a CO2 sensor has been installed within each densely occupied space, that an outdoor airflow measurement device has been installed for all systems where 20% or more of the design supply airflow services non-densely occupied spaces, and these devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value.

IEQc2: Increased Ventilation

POSSIBLE POINTS: 1

Not Attempted

IEQc3.1: Construction IAQ Management Plan-During Construction

POSSIBLE POINTS: 1

Not Attempted

IEQc3.2: Construction IAQ Management Plan-Before Occupancy

POSSIBLE POINTS: 1

Not Attempted

IEQc4: Low-Emitting Materials

Awarded: 3

POSSIBLE POINTS: 4
 ATTEMPTED: 3, DENIED: 1, PENDING: 0, AWARDED: 3

04/25/2018 CONSTRUCTION FINAL REVIEW

IEQc4.1

The project has withdrawn this credit.

11/03/2017 CONSTRUCTION PRELIMINARY REVIEW

IEQc4.1

The LEED Form states that all adhesive and sealant products used on the inside of the weatherproofing system and applied on-site comply with CA Section 01350 Testing and Product Requirements. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. Based on the scope of work, it is unclear whether all adhesives and sealants used on the inside of the weatherproofing system and applied on-site have been included in the table. Refer to the referenced standards of this credit and confirm whether the comprehensive list of adhesives and sealants, as defined by the referenced standards, used on the inside of the weatherproofing system and applied on-site have been included in the table. The following are common products included in this credit: flooring adhesives, subfloor adhesives, drywall and panel adhesives, wall-base adhesives, multipurpose construction adhesives, structural glazing and wood adhesives, substrate adhesives, tile adhesives, contact adhesives, architectural sealants (including grouts, and polyurethane or plastic foams), duct sealants, plumbing adhesives and sealants, wall-covering adhesives, fiberglass panel adhesives, welding adhesives, and aerosol adhesives. Refer to the South Coast Air Quality Management District (SCAQMD) South Coast Rule 1168 (effective date of July 1, 2005 and rule amendment date of January 7, 2005) for the complete list and definitions. Consult AQMD and product manufacturers for assistance in properly classifying products. Revise the form, provide additional manufacturer documentation, and include a narrative to explain any special circumstances, if necessary. Ensure that all applicable products have been included in the documentation.

One point is pending.

IEQc4.2

The LEED Form states that all paint and coating products used on the inside of the weatherproofing system and applied on-site comply with CA Section 01350 Testing and Product Requirements.

One point is earned.

IEQc4.3

The LEED Form states that all flooring elements installed on the building interior within the scope of work comply with CA Section 01350 Testing and Product Requirements.

One point is earned.

IEQc4.4

The LEED Form states that all composite wood and agrifiber products installed on the building interior comply with CA Section 01350 Testing and Product Requirements.

One point is earned.

IEQc5: Indoor Chemical and Pollutant Source Control
 POSSIBLE POINTS: 1

Not Attempted

IEQc6.1: Controllability of Systems-Lighting
 POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

Awarded: 1

04/10/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that lighting controls are provided for 100% of building occupants and 100% of shared multi-occupant and classroom spaces to enable adjustments that meet needs and preferences.

**IEQc6.2: Controllability of Systems-
Thermal Comfort**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

Awarded: 1**04/13/2015 DESIGN PRELIMINARY REVIEW**

The LEED Form states that thermal controls are provided for 52.38% of building occupants and 100% of shared multi-occupant spaces to enable adjustments that meet needs and preferences.

IEQc7.1: Thermal Comfort-Design

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

Awarded: 1**04/03/2015 DESIGN PRELIMINARY REVIEW**

The LEED Form states that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE 55-2004.

IEQc7.2: Thermal Comfort-Verification

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

Awarded: 1**04/13/2015 DESIGN PRELIMINARY REVIEW**

The LEED Form states that a permanent monitoring system will be installed and a thermal comfort survey of building occupants will be conducted between six and eighteen months after occupancy.

IEQc8.1: Daylight and Views-Daylight

POSSIBLE POINTS: 3

**Not
Attempted****IEQc8.2: Daylight and Views-Views**

POSSIBLE POINTS: 1

**Not
Attempted****IEQc9: Enhanced Acoustical Performance**

POSSIBLE POINTS: 1

**Not
Attempted****IEQc10: Mold Prevention**

POSSIBLE POINTS: 1

**Not
Attempted**



Innovation in Design

IDc1.1: ID/ Exp Performance EAc1 **Awarded: 1**

POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/03/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project achieves exemplary performance for EAc1: Optimize Energy Performance as specified in the LEED BD+C v2009 Reference Guide.

IDc1.1: Innovation in Design **Not Attempted**

POSSIBLE POINTS: 1

IDc1.2: ID Exemplary Performance- EAc2 **Awarded: 1**

POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/03/2015 DESIGN PRELIMINARY REVIEW

The LEED Form states that the project achieves exemplary performance for EAc2: On-Site Renewable Energy as specified in the LEED BD+C v2009 Reference Guide.

IDc1.2: Innovation in Design **Not Attempted**

POSSIBLE POINTS: 1

IDc1.3: Innovation in Design **Not Attempted**

POSSIBLE POINTS: 1

IDc1.3: Innovation in Design Maximize Open Space **Awarded: 1**

POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

11/03/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project achieves exemplary performance for SSc5.2: Site Development — Maximize Open Space. The requirement for exemplary performance is to provide open space equal to or greater than twice the footprint of the LEED project building and the project has documented open space greater than six times the footprint of the project building.

IDc1.4: Innovation in Design **Not Attempted**

POSSIBLE POINTS: 1

IDc1.4: Innovation in Design **Awarded: 1**

POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/09/2018 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that the project team has developed and implemented a Green Housekeeping program. The project must demonstrate compliance with LEED-EBOM 2009 IEQp3: Green Cleaning Policy. The Green Cleaning Policy follows the LEED-EBOM Policy Model and demonstrates the development of a comprehensive and quantitative green cleaning program that includes detailed information regarding staff training, cleaning processes and chemicals, and occupant feedback.

IDc2: LEED® Accredited Professional **Awarded: 1**

POSSIBLE POINTS: 1
 ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

11/03/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form states that a LEED AP has been a participant on the project development team.

IDc3: The School as a Teaching Tool**Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

04/26/2018 CONSTRUCTION FINAL REVIEW

The additional documentation demonstrates compliance.

04/16/2018 REVISED REVIEW COMMENT

The LEED Form states that the project staff has designed a curriculum based on the high-performance features of the building. However, to demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE

1. It is not clear that the curriculum, as described, meets the credit intent except for that described for the fifth grade. The curriculum does not appear to be based on the high-performance features of the building and does not explore the relationship between human ecology, natural ecology and the project building. Provide additional documentation of the coursework which clearly states how the information, data, philosophy or other attributes of the school's design features play a significant, central role in the course offering(s), module composition or related learning activities of the curriculum.
2. The form is blank. Provide a revised form which has been completed. Ensure that the form has been signed confirming that the curriculum will be implemented within ten months of LEED certification, meets local or state curriculum standards and provides ten or more hours of classroom instruction per year per full-time student.
3. Provide written documentation from the school administrative body confirming that the curriculum has been reviewed and approved.

11/03/2017 CONSTRUCTION PRELIMINARY REVIEW

The LEED Form is blank. To demonstrate compliance, the following must be addressed.

TECHNICAL ADVICE:

1. Provide a revised form which has been completed along with all of the necessary documentation it requires.

**Regional priority****SSc6.1: Stormwater Design-Quantity Control**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

EAc2: On-Site Renewable Energy

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

MRC2: Construction Waste Management

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

TOTAL	109	73	1	0	73
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REVIEW SUMMARY

Review			POINTS:			
	SUBMITTED	RETURNED	SUBMITTED	DENIED	PENDING	AWARDED
Design Preliminary	03/23/2015	04/14/2015	56	0	9	47
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
P1f1: Minimum Program Requirements	Approved		0	0	0	0
P1f2: Project Summary Details	Approved		0	0	0	0
P1f3: Occupant and Usage Data	Approved		0	0	0	0
P1f4: Schedule and Overview Documents	Not Approved		0	0	0	0
SSp2: Environmental Site Assessment	Anticipated	Design	0	0	0	0
SSc1: Site Selection	Anticipated	Design	1	0	0	1
SSc4.1: Alternative Transportation-Public Transportation Access	Anticipated	Design	4	0	0	4
SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms	Anticipated	Design	1	0	0	1
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Pending	Design	2	0	2	0
SSc4.4: Alternative Transportation-Parking Capacity	Pending	Design	2	0	2	0
SSc5.2: Site Development-Maximize Open Space	Pending	Design	1	0	1	0
SSc6.1: Stormwater Design-Quantity Control	Anticipated	Design	2	0	0	2
SSc7.2: Heat Island Effect-Roof	Anticipated	Design	1	0	0	1
SSc10: Joint Use of Facilities	Pending	Design	1	0	1	0
WEp1: Water Use Reduction-20% Reduction	Anticipated	Design	0	0	0	0
WEc1: Water Efficient Landscaping	Pending	Design	2	0	2	0
WEc3: Water Use Reduction	Anticipated	Design	3	0	0	3
WEc4: Process Water Use Reduction	Anticipated	Design	1	0	0	1
EAp2: Minimum Energy Performance	Anticipated	Design	0	0	0	0
EAp3: Fundamental Refrigerant Management	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Anticipated	Design	19	0	0	19
EAc2: On-Site Renewable Energy	Anticipated	Design	8	0	0	8
EAc4: Enhanced Refrigerant Management	Pending	Design	1	0	1	0
MRp1: Storage and Collection of Recyclables	Anticipated	Design	0	0	0	0
IEQp1: Minimum Indoor Air Quality Performance	Anticipated	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Anticipated	Design	0	0	0	0
IEQp3: Minimum Acoustical Performance	Pending	Design	0	0	0	0
IEQc1: Outdoor Air Delivery Monitoring	Anticipated	Design	1	0	0	1
IEQc6.1: Controllability of Systems-Lighting	Anticipated	Design	1	0	0	1
IEQc6.2: Controllability of Systems-Thermal Comfort	Anticipated	Design	1	0	0	1
IEQc7.1: Thermal Comfort-Design	Anticipated	Design	1	0	0	1

IEQc7.2: Thermal Comfort-Verification	Anticipated	Design	1	0	0	1
IDc1.1: ID/ Exp Performance EAc1: Optimize Energy Performance	Anticipated	Design	1	0	0	1
IDc1.2: ID Exemplary Performance- EAc2:On-Site Renewable Energy	Anticipated	Design	1	0	0	1

Design Final		03/28/2016	04/13/2016	9	0	0	9
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED	
Plf4: Schedule and Overview Documents	Approved		0	0	0	0	
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Anticipated	Design	2	0	0	2	
SSc4.4: Alternative Transportation-Parking Capacity	Anticipated	Design	2	0	0	2	
SSc5.2: Site Development-Maximize Open Space	Anticipated	Design	1	0	0	1	
SSc10: Joint Use of Facilities	Anticipated	Design	1	0	0	1	
WEc1: Water Efficient Landscaping	Anticipated	Design	2	0	0	2	
EAc4: Enhanced Refrigerant Management	Anticipated	Design	1	0	0	1	
IEQp3: Minimum Acoustical Performance	Anticipated	Design	0	0	0	0	

Construction Preliminary		10/20/2017	04/10/2018	24	1	9	14
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED	
SSp1: Construction Activity Pollution Prevention	Awarded	Construction	0	0	0	0	
WEp1: Water Use Reduction-20% Reduction	Awarded	Design	0	0	0	0	
EAp1: Fundamental Commissioning of the Building Energy Systems	Awarded	Construction	0	0	0	0	
EAp3: Fundamental Refrigerant Management	Awarded	Design	0	0	0	0	
EAc3: Enhanced Commissioning	Awarded	Construction	2	0	0	2	
EAc5: Measurement and Verification	Awarded	Construction	1	0	0	1	
MRc2: Construction Waste Management	Awarded	Construction	3	0	0	3	
MRc4: Recycled Content	Awarded	Construction	2	0	0	2	
MRc5: Regional Materials	Pending	Construction	2	0	2	0	
IEQc4: Low-Emitting Materials	Pending	Construction	4	0	1	3	
IDc1.3: Innovation in Design Maximize Open Space	Awarded	Construction	1	0	0	1	
IDc1.4: Innovation in Design: Green Cleaning	Awarded	Construction	1	0	0	1	
IDc2: LEED® Accredited Professional	Awarded	Construction	1	0	0	1	
IDc3: The School as a Teaching Tool	Pending	Design	1	0	1	0	

Construction Final		04/17/2018	04/30/2018	6	1	0	6
Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED	
MRC5: Regional Materials	Awarded	Construction	2	0	0	2	
IEQc4: Low-Emitting Materials	Awarded	Construction	3	1	0	3	
IDc3: The School as a Teaching Tool	Awarded	Design	1	0	0	1	



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