

FRANKLIN ELEMENTARY

NEW CLASSROOM BUILDING

EDUCATIONAL



PROJECT DESCRIPTION

Franklin Elementary School Learning Annex exemplifies high performance on a tight (and tightening) budget. Faced with escalating costs across a District-wide bond programs, the district facilities team redefined the project with a modular building budget as a cost benchmark. Simultaneously, the design team worked closely with the school foundation to pursue supplemental funding from the State's Proposition 84 Urban Greening Grant Program.

Through adoption of highly regularized building geometries, simple materials, and straightforward detailing coupled with the successful grant, the project met the budget goals and exceeded sustainability goals. The resulting campus additions include a Net Zero Energy classroom building and a landscape overhaul on an existing elementary school site.

We oriented the building for maximum solar exposure and, as a result, it generates more than enough energy on an annual basis to power the new building and further offset the energy demands of the existing campus buildings. This project relies on orientation, overhangs, and passive strategies that maximize energy efficiency and then uses solar to provide the energy. Simultaneously, the building orientation separates kindergarten play from the areas for older children eliminating the need for fencing.

As one of only two successful grant applications to the State's Urban Greening Grant Program for a public school, the project is exemplary in its strategies to reduce energy consumption, conserve water, and improve air/water quality. Value to the surrounding community is amplified access to new perimeter landscapes, and 38 new trees, replacing asphalt with softscape and permeable paving, native habitat and rain garden bio-retention zones, outdoor learning areas and a community garden.

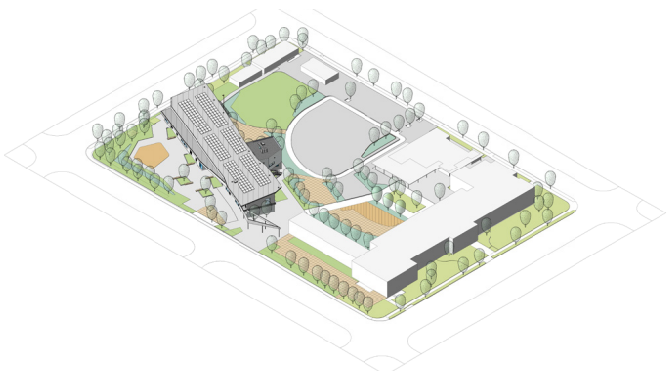
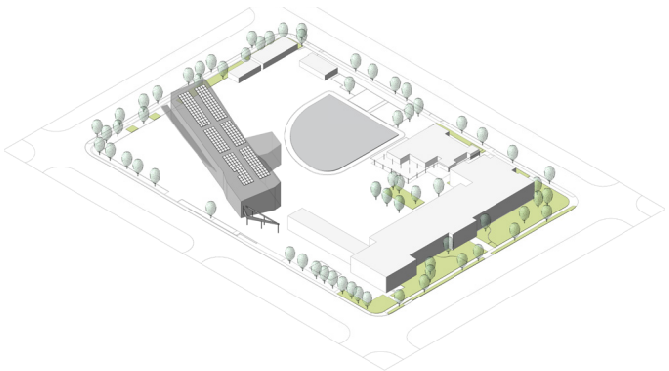
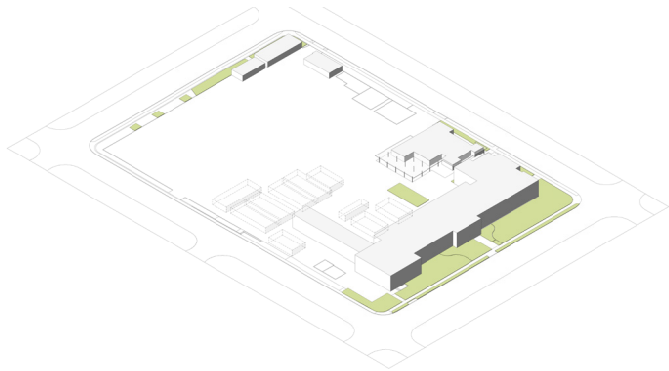
-The project prioritizes design in concert with a reduced budget by leveraging ordinary materials and sustainability objectives.

-The project embraces the State's sustainability goals to drive a broader conversation across a large school district about design, ecology, and resource conservation.

-Despite a limited scope of a single building to replace aging portables, the design team embraced a whole-site perspective to implement radical and replicable change.

-Expansive thinking about design and sustainability inspired a community to come together to advocate for a broader, more impactful vision.

-At the core, this is a site for learning; classrooms with ample daylight and views, outdoor gathering spaces, usable landscapes, school identity, and architecture as a teaching tool.



BEFORE



Heat Island Effect

108 Degree Temperatures at Peak Times

AFTER



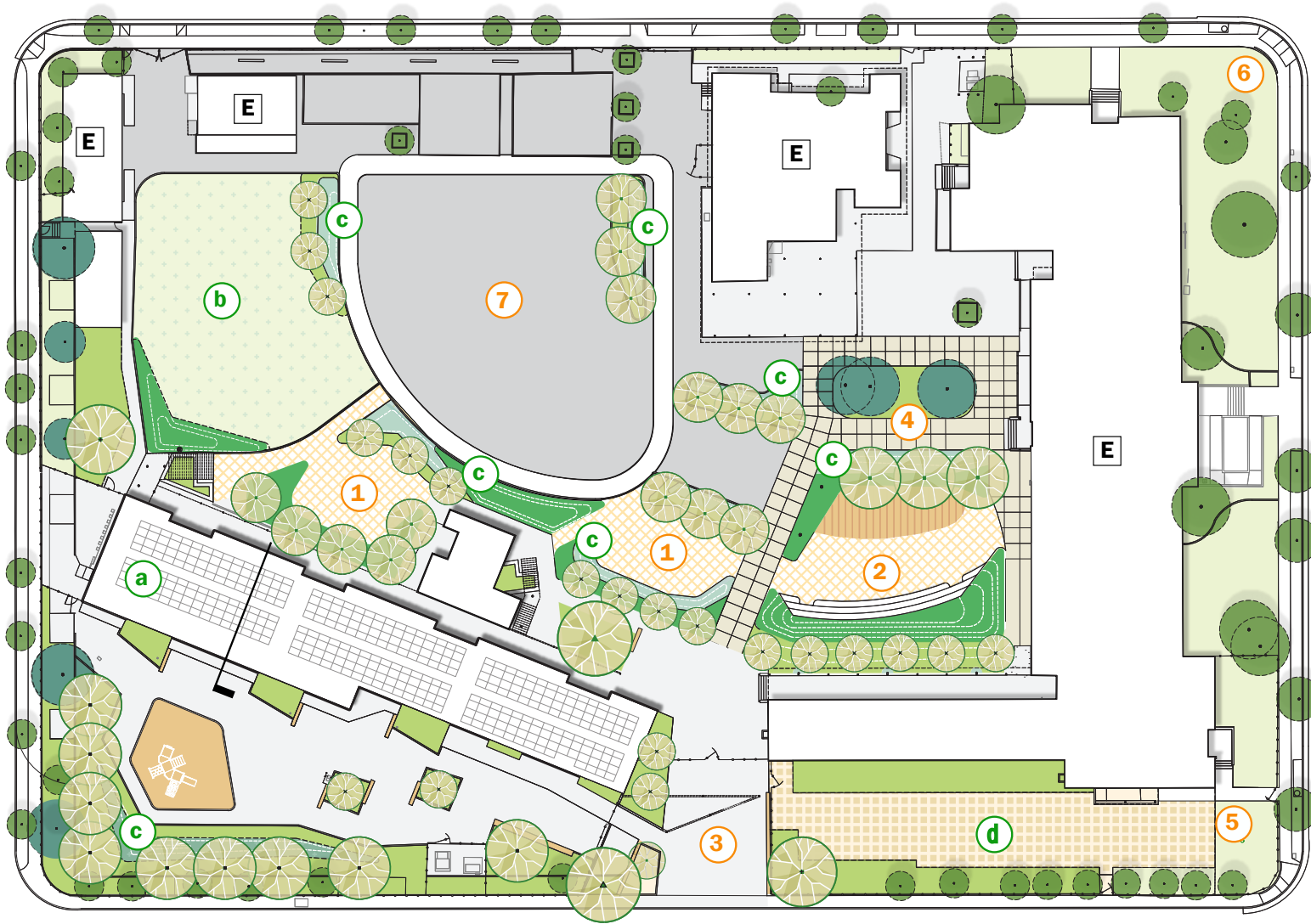
Asphalt Reduction By 45,000 SF Removal

Temperature Decrease From Shade and Planting

Collection of Stormwater By Permeable Surfaces

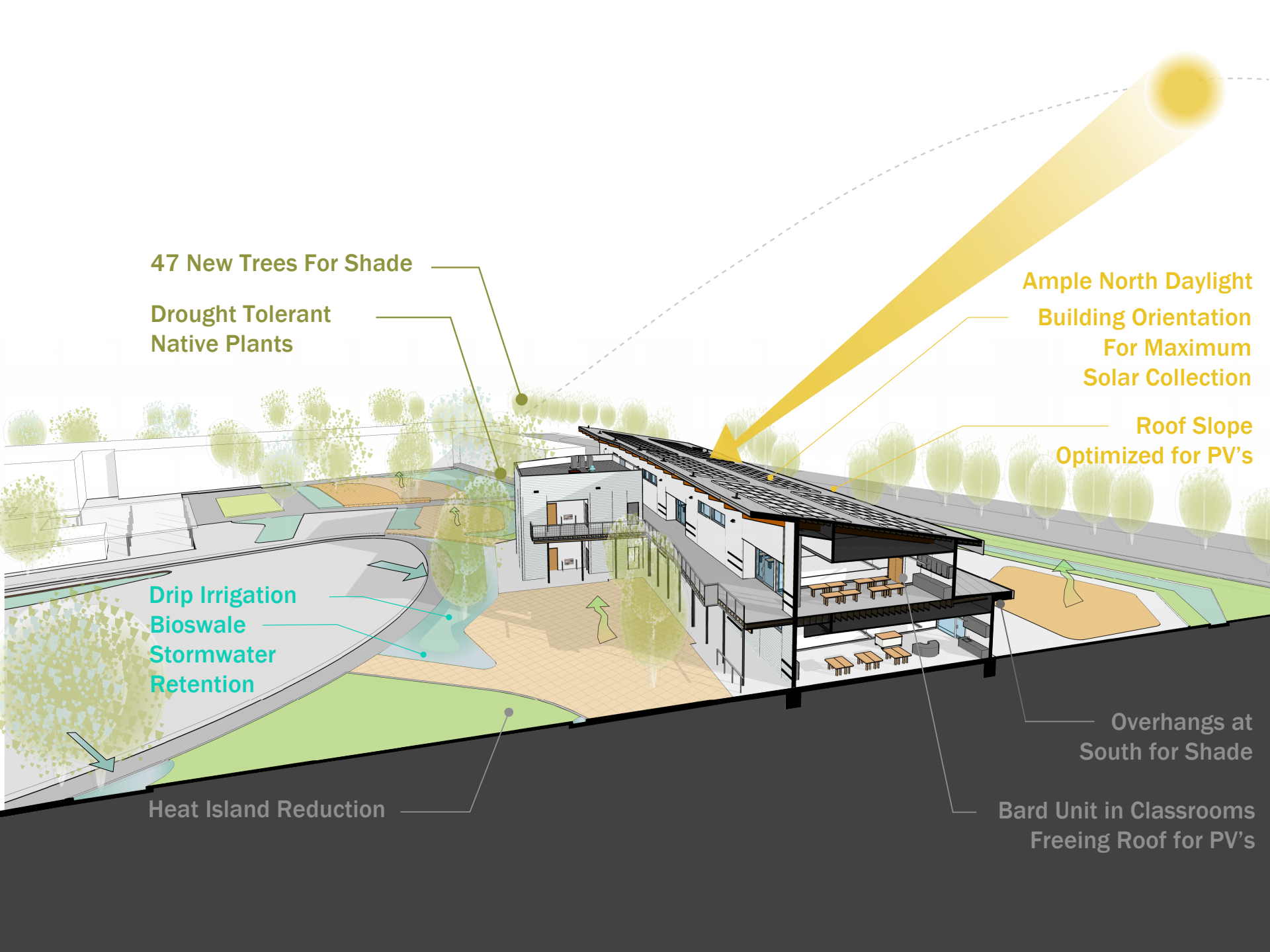
Reduction of Water Consumption With Plants

Building Orientation Maximum Sun Exposure



- ### LEGEND
- E** Existing Building
 - 1** Outdoor Classroom
 - 2** Amphitheater
 - 3** Parent Gathering
 - 4** Reading Benches
 - 5** Community Garden
 - 6** Community Access
 - 7** Athletics Court
 - a** Photovoltaics
 - b** Playfield
 - c** Bioswale
 - d** Rain Garden





47 New Trees For Shade

Drought Tolerant
Native Plants

Drip Irrigation
Bioswale
Stormwater
Retention

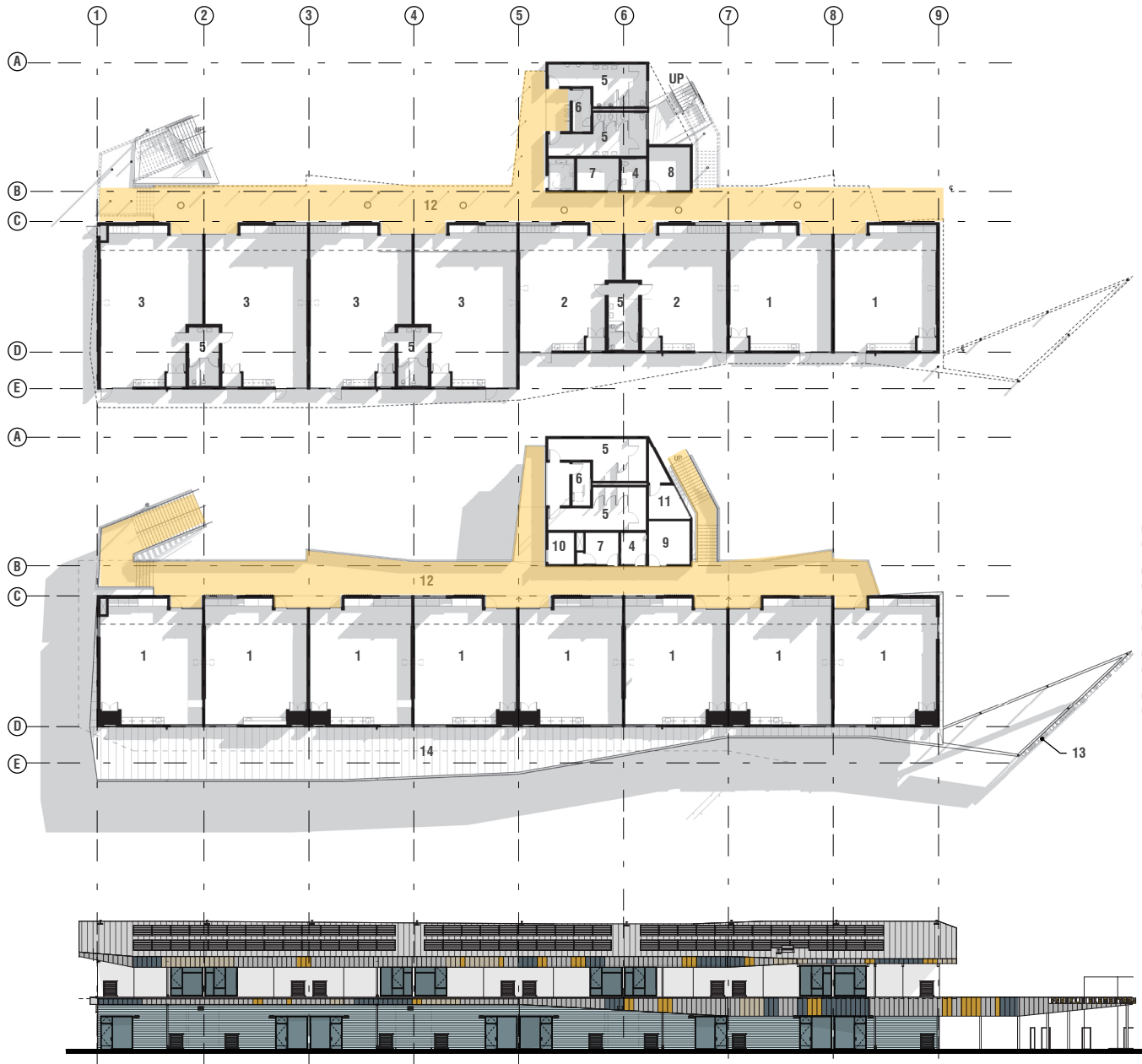
Heat Island Reduction

Ample North Daylight
Building Orientation
For Maximum
Solar Collection

Roof Slope
Optimized for PV's

Overhangs at
South for Shade

Bard Unit in Classrooms
Freeing Roof for PV's



LEGEND

- 1. Classroom
- 2. Preschool
- 3. Kindergarten
- 4. Staff Restroom
- 5. Restroom
- 6. Janitor Closet
- 7. Electrical Room
- 8. Office
- 9. Conference Room
- 10. Elevator
- 11. Closet
- 12. Balcony
- 13. School Sign
- 14. Roof





Northern Daylit Classroom Cooled with Heat Pumps From Closet



Identity Through Selective Material Detailing and Signage



Shade Overhangs On South Side of Building



Programmed Landscape Berm and Bioswale



Reduction of Heat Island Effect Through Strategic Planning