

Sustainability at the Mueller Redevelopment

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February 12, 2019

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Green Building Requirements

What is Green Building?

What does it take to achieve a Green Building Rating?

Results

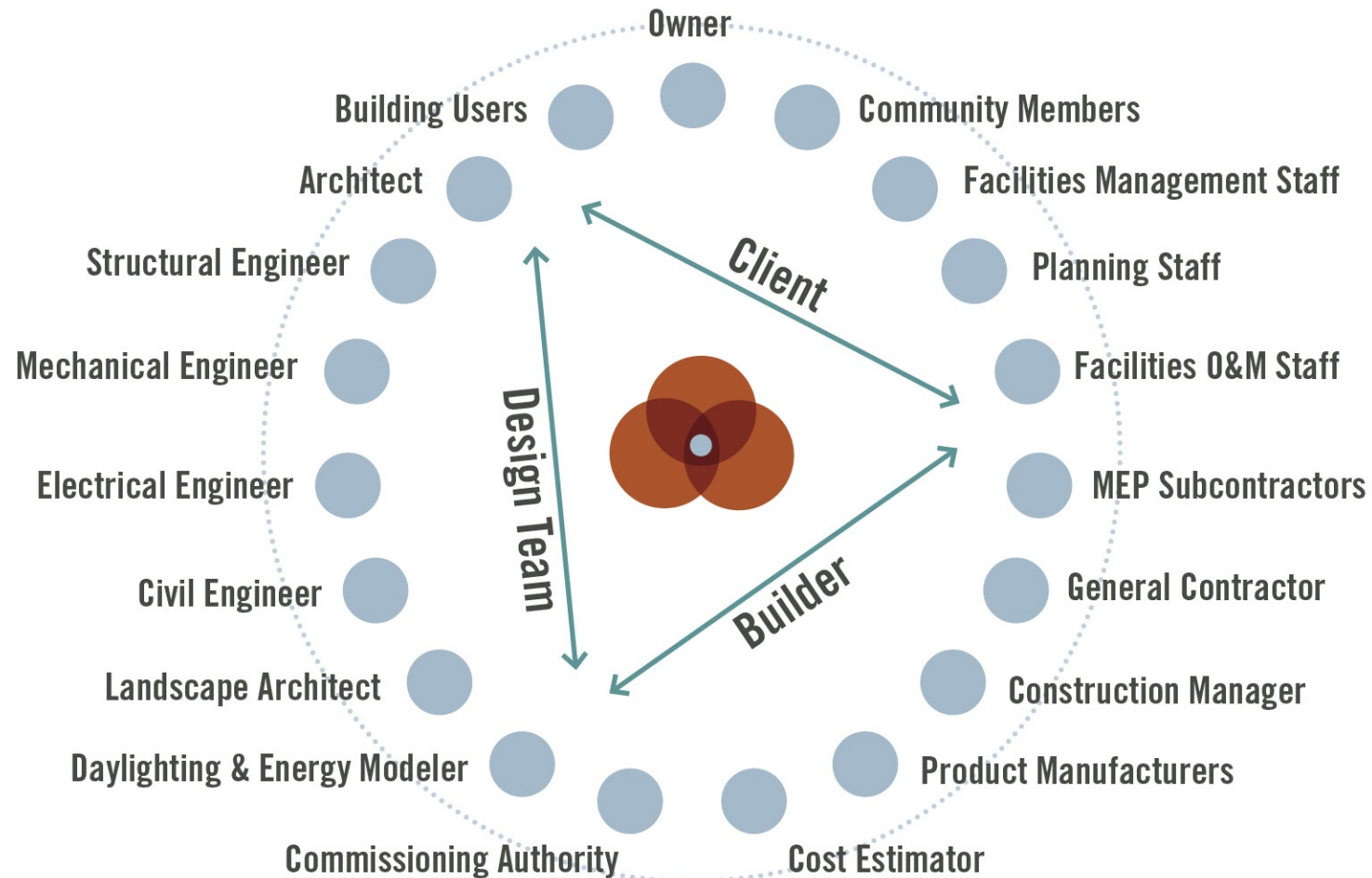
What benefits do Green Buildings provide?

Current Projects

What projects are currently being rated in the Mueller neighborhood?



Integrative Approach - Key Stakeholders



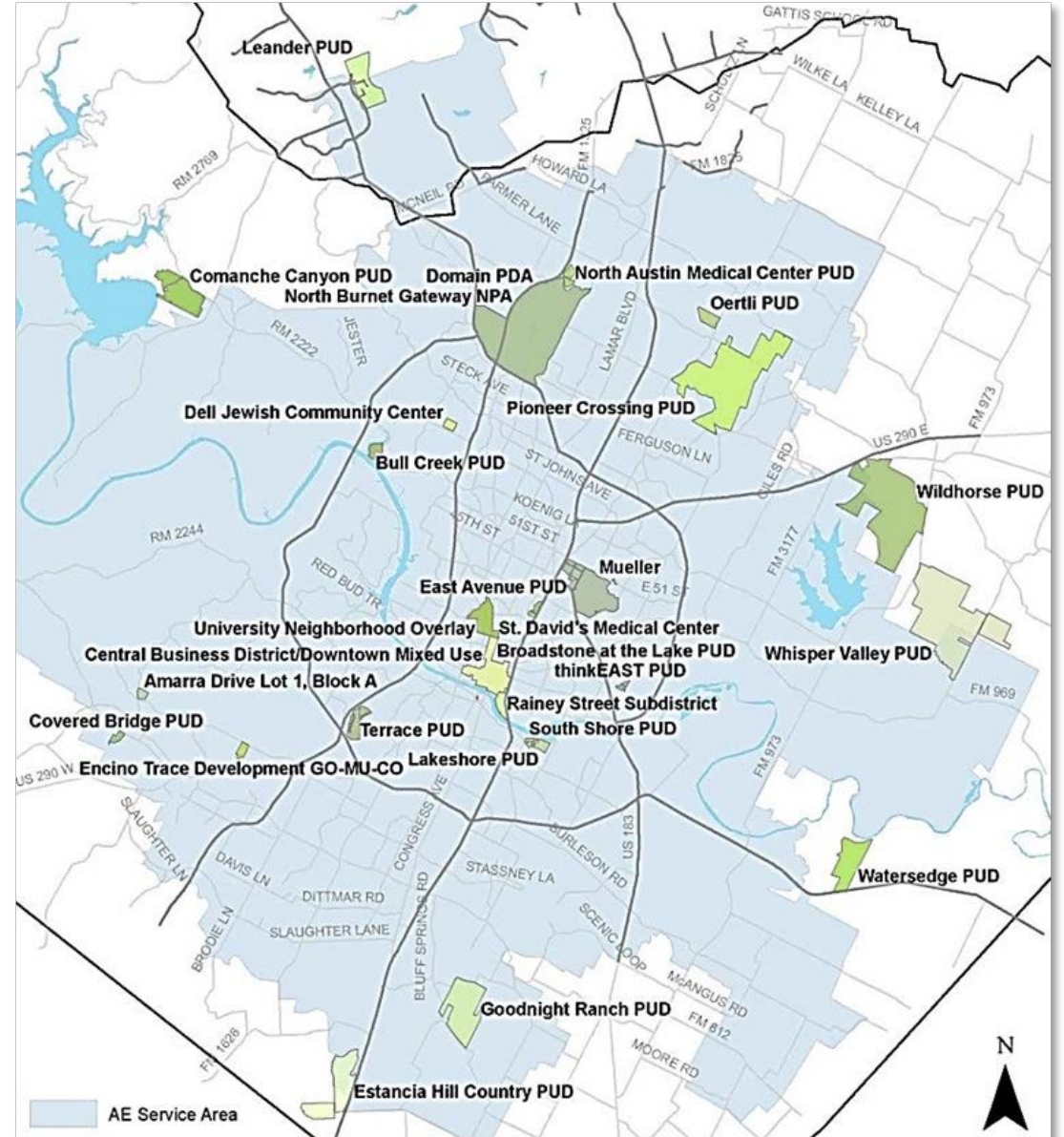
Adapted from graphic by Bill Reed

Austin's Green Building Legacy



AEGB Market Reach and Acceleration

	Underway	Completed
Commercial		
Projects	119	261
Million (sf)	25	31
Res Units	6,000	8,900
Multifamily		
Res Units	3,440	25,888
Single Family		
Homes	1,312	15,432



Codes | Ordinances | Standards | Initiatives

Climate Protection Plan, City Initiatives & Austin Energy Goals (2025)

- Imagine Austin
- Zero Waste Plan
- Watershed Protection
- Austin Water Forward
- Vision Zero
- AE Generation Resource Plan
 - 800 MW Conservation Goal with 100 MW of DR
 - 950 MW Solar Goal with 110 MW of Local Solar
 - 55% Renewables Goal
 - 10 MW Storage Goal
 - 20% Emissions Reduction



Austin Energy Green Building

Local Sustainability Goals



Resource
Stewardship:

Meet COA
Environmental
Initiatives
including the AE
Generation
Resource Plan



Global
Leadership:
Contribute to
energy security
+ Climate Action
Plan



Keep Austin
Weird:
Safeguard local
environment,
air quality, and
community
culture



Workplace
Advances:
Make Green
Building the
Industry
standard



Local Economy:
Foster green
materials and
job markets



Austin Energy Green Building

Mission Statement: To cultivate innovation in building and transportation for the enrichment of the community's environmental, economic and human well-being.



Single Family

Production + custom



Multi-family

Residential ≤ 7 stories



Commercial

All commercial
Residential 7+ stories



Green Building: Star Powered

The star rating achieved by a project is determined by the number of sustainability measures incorporated into the project.

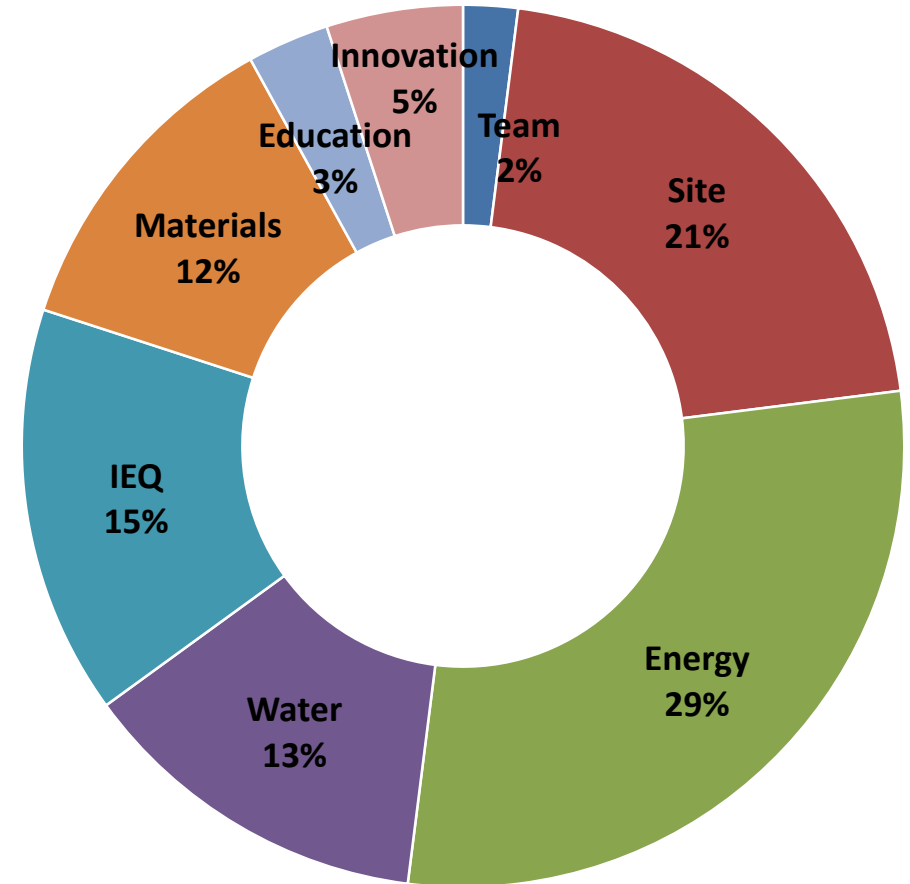
Basic Requirements	1 Star
35 – 44 pts	2 Star
45 – 54 pts	3 Star
55 – 74 pts	4 Star
75 pts or more	5 Star



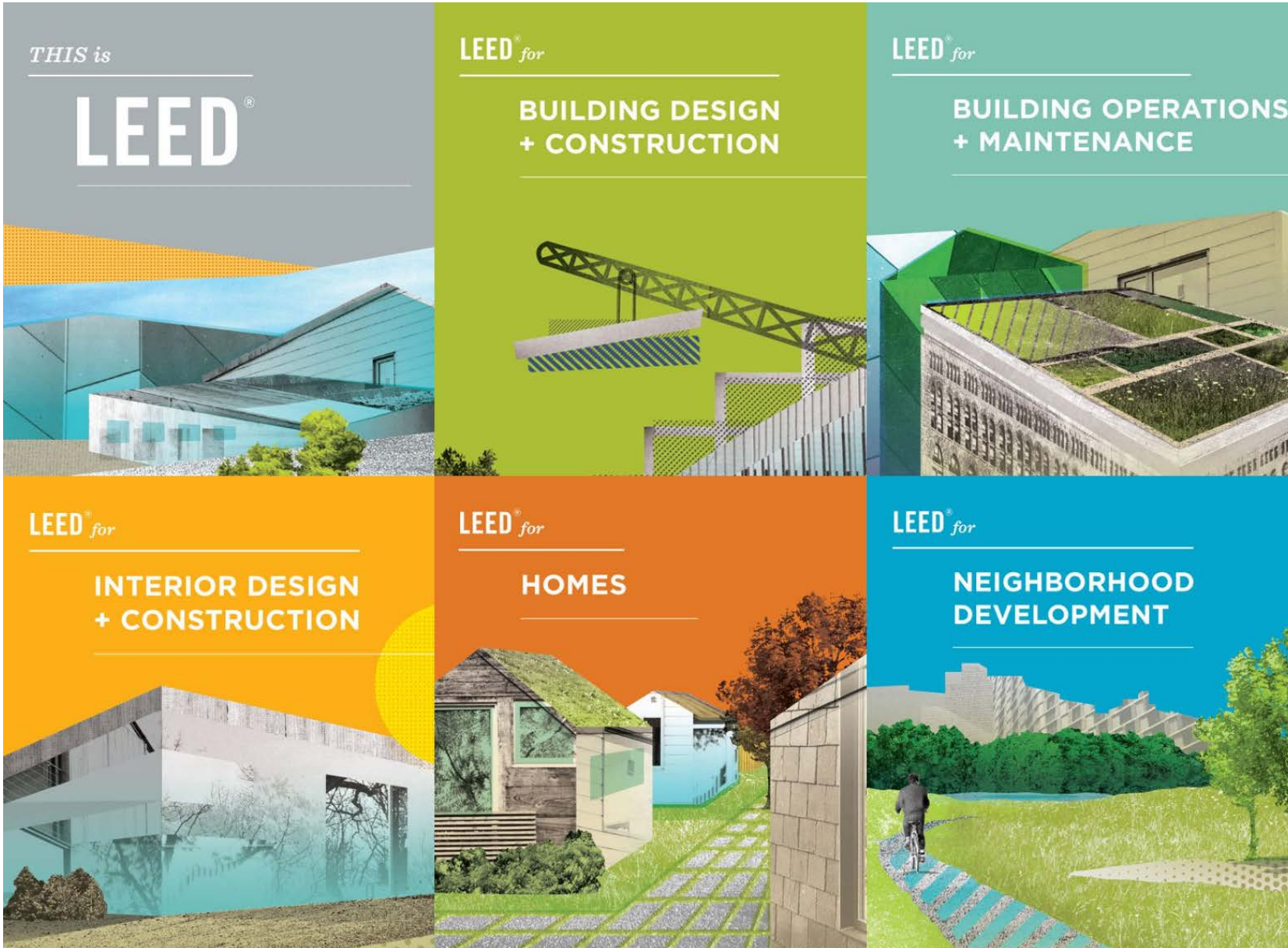
Commercial Rating – Point Allocation

2016 Commercial Rating

Categories	Points	Weight
Integrated Design	2	2.00%
Site	21	21.00%
Energy	29	29.00%
Water	13	13.00%
IEQ	15	15.00%
M&R	12	12.00%
Education	3	3.00%
Innovation	5	5.00%
Total	100	100.00%



LEED Certification Systems



Mueller Design Guidelines

**Commercial Projects > 25,000 sq ft
Multifamily Projects**

2-Star AEGB Ratings
and/or

LEED Certification

Single Family Projects

3-Star AEGB Rating



Mueller by the Numbers

According to the Plan*

- Commercial ft²: 4.5 M ft²
(14,000 employees)
 - 1,900,000 ft² institutional
 - 750,000 ft² retail
 - 1,900,000 ft² office/other commercial
- Dwelling Units: 6,200
(14,000 new residents)
 - 3,650 apartments and condos
 - 2,550 single family homes, row houses, shop houses and Mueller houses
 - 25% of homes affordable
(1,550 units for 80% MFI)

**subject to change*

Results to Date (rated projects)

- Commercial 2.2 M ft²
(43% built-out)
 - 1,214,000 M ft² institutional
 - 637,000 ft² retail
 - 420,000 ft² office/other commercial
- Dwelling Units: 3,636
(44% built-out)
 - 2,013 apartments and condos
 - 1,623 single family homes, row houses, shop houses and Mueller houses
 - 25% of homes affordable
(963 affordable homes)





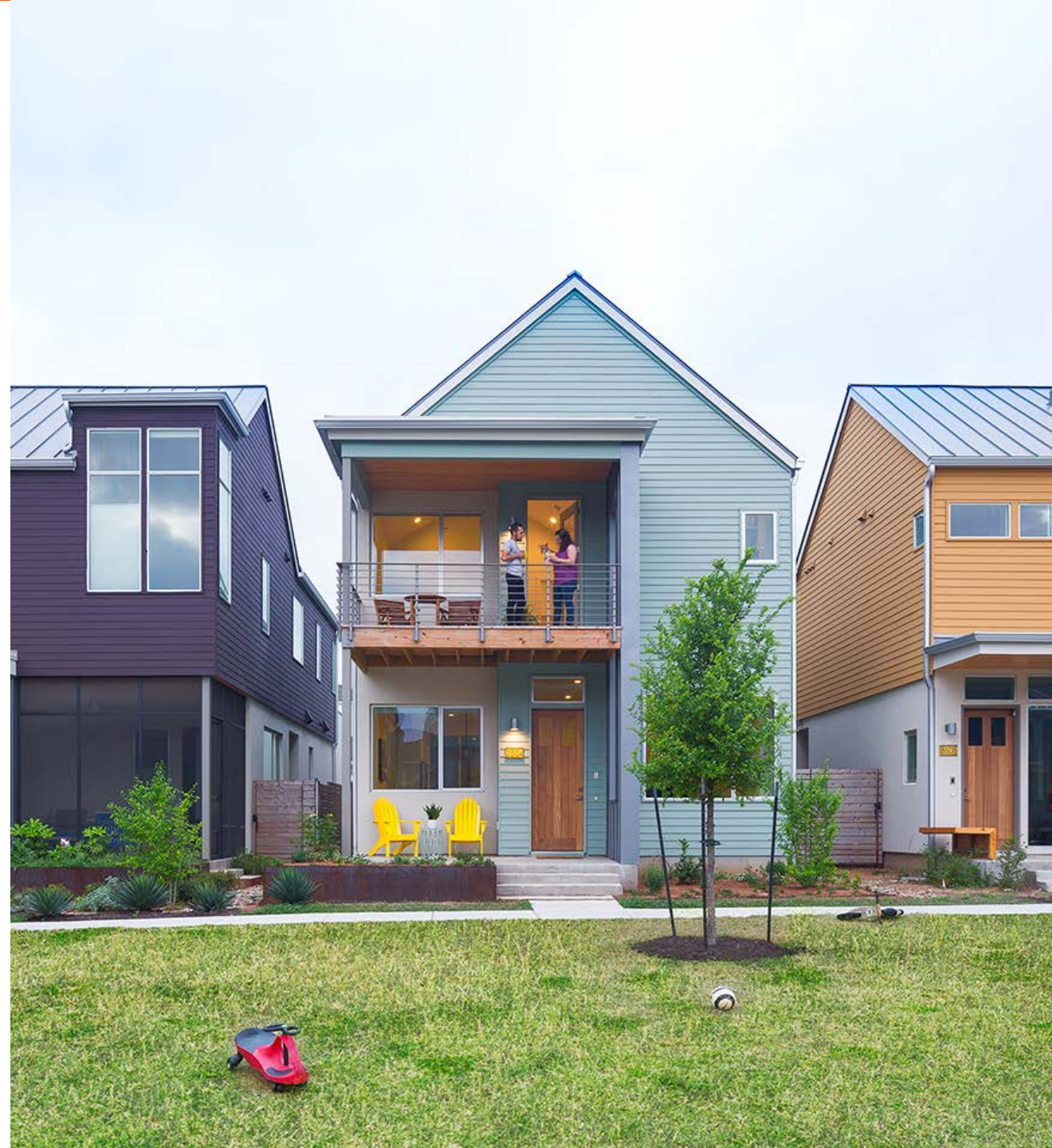
Single Family

1,623 Rated Homes

- 3-Star: 1448
- 4-Star: 65
- 5-Star: 110

Total Savings

- 1,100 kW (Demand)
- 2,200 MWh (Energy)
- 30,000 tons diverted





Multifamily

2,013 Rated Units

- 1-Star: AMLI Phase I
- 2-Star: AMLI Phase II, Aldrich 51
- 3-Star: Mosaic, Elements, Greenway Lofts, Wildflower Terrace, Overture at Mueller
- LEED Silver: Wildflower Terrace
- LEED Platinum: AMLI Phase I and II

Total Savings

- 696 kW (Demand)
- 3,966 MWh (Energy)
- 9,071 Tons diverted (79%)
- 627,000 gals irrigation (100%)
- 14.6 M gals indoor (26%)





Commercial

53 Rated Projects

2.2 million ft²

Total Savings

- 5,875 kW (Demand)
- 17,408 MWh (Energy)
- 44,434 tons diverted (88%)
- 5.63 M gals irrigation (85%)
- 6.58 M gals indoor (32%)

Reclaimed Water Savings

- Irrigation: 24.7 M gals
- Projects that use reclaimed water indoors:
Mueller Central, Mueller Diamond, Frost Bank,
AISD PAC, and HEB



AEGB 3-Star

- Neighbors Emergency Center
- Strictly Pediatrics at Mueller
- South Regional Retail
(26 at 3-Star)

LEED Silver

- Mueller Retail Building 10
- The Thinkery
- Residence Inn
- Wildflower Terrace
- Mueller Cinema

LEED Silver and AEGB 3-Star

- Starbucks
- Mueller Market District



AEGB 4-Star

- Satellite Dialysis
- Ella Wooten and John Gaines Parks
- Home Depot
- Alamo Drafthouse

LEED Gold

- Dell Children's Medical Center
- Dell Pediatric Research Institute
- Frost Bank
- SEDL

AEGB 4-Star and LEED Gold

- H-E-B
- Seton Administration Offices
- Mueller Central – Visitors Center
- Mueller Diamond



AEGB 5-Star

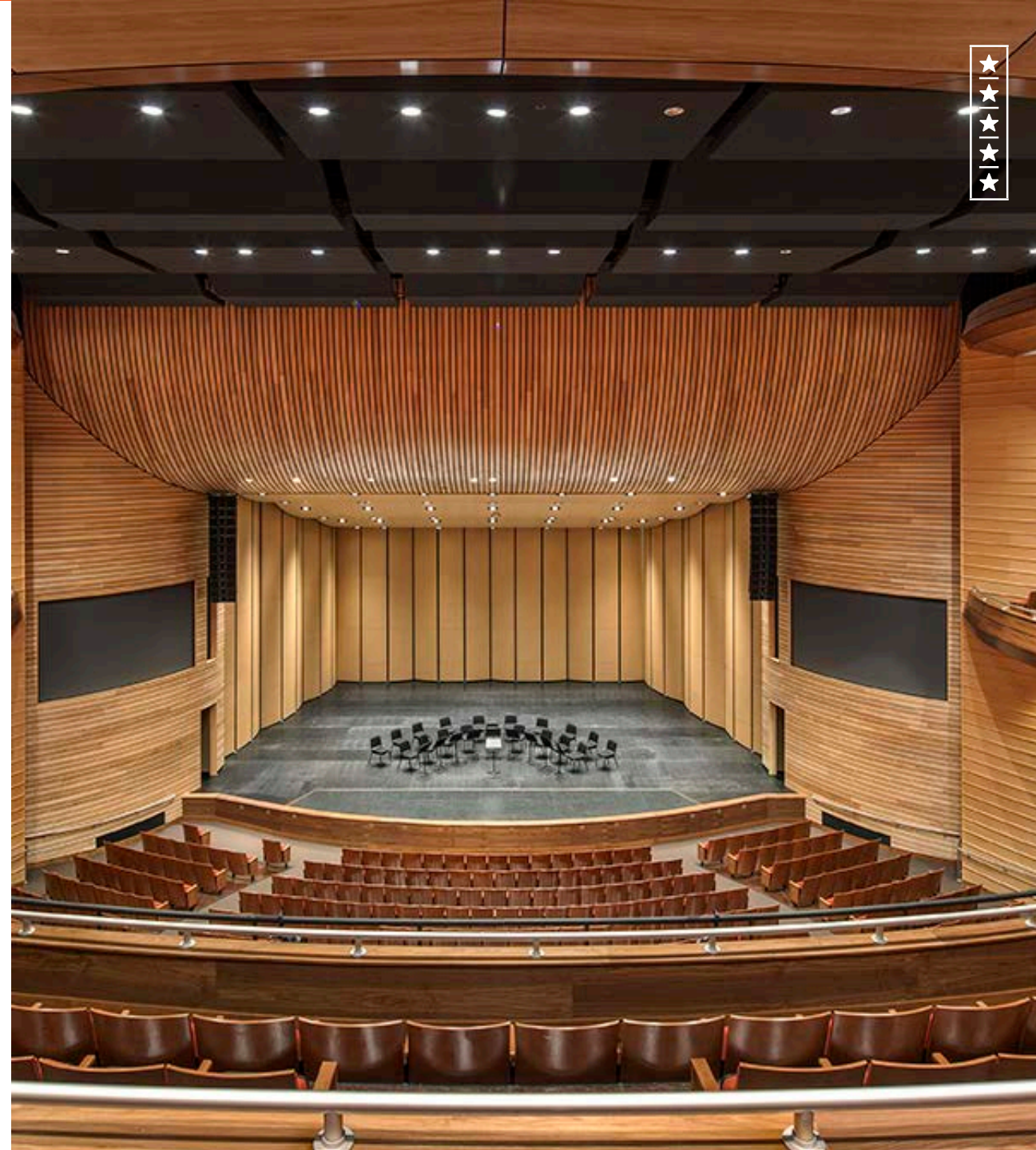
- AISD Performing Arts Center

LEED Platinum

- Ronald McDonald House
- AMLI, Phase I and II
(LEED for Homes and LEED NC)

AEGB 5-Star and LEED Platinum

- Dell Children's Medical Center (2)



What do the Numbers Mean?

Annual Project Savings effectively:

- Planted 337,500 trees or 17,000 acres of forest in Austin parks
- Removed 29,500,000 Vehicle Miles or 2,500 cars from Austin's busy roadways
- Provided electricity for 2,000 average Austin residences for a year



Current Projects



Mueller Cinema Building, Mueller Diamond,
Mueller Town Center Park, Texas Mutual Insurance,
Austin Energy Headquarters



LEED ND Gold

Mueller is one of the largest projects to participate in the program

Goal: Silver

Achieved: Gold



USGBC 2018 Leadership Awards

USGBC recognizes Mueller with 2018 Leadership Award during Greenbuild Conference.

Pictured (left to right):

- Jim Walker, Austin Community Leader
- Kathie Tovo, Mayor Pro Tem, Austin City Council District 9
- Sarah Talkington, Commercial Group Manager, Austin Energy Green Building
- Gail Vittori, Co-Director, Center for Maximum Potential Building Services
- Mahesh Ramanujam, President and CEO, USGBC
- Greg Weaver, Executive Vice President, Catellus Development Corporation



Mueller Energy Center

The Mueller Energy Center provides chilled water cooling, steam for sterilization, and onsite electric production to Seton's Dell Children's Medical Center. Other commercial projects can purchase chilled water for cooling their buildings. Additional capacity is being added to service new customers.

994,468 ft²

Customer facilities
supplied with chilled
water

3,817 tons

Peak cooling



Solar at Mueller

Solar ready construction guidelines at Mueller allowed commercial and residential customers to readily install PV solar panels and served as a guide for the solar ready ordinance introduced into the energy code.

232 kW

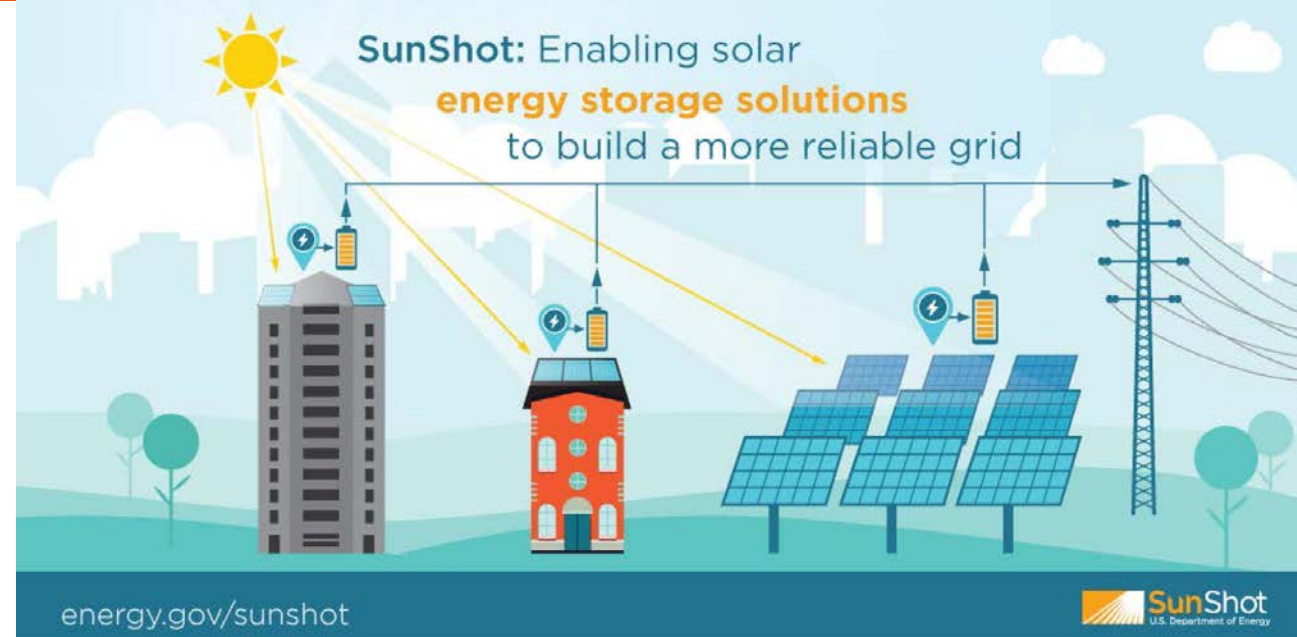
Solar capacity on AEGB
commercial rated
buildings



Austin SHINES Project

Pairing Energy Storage with Solar

- Sustainable and Holistic Integration of Energy Storage and Solar PV
 - Residential
 - Commercial
 - Grid Scale



Mueller Energy Storage Update

The temporary fence will be replaced by a permanent perimeter wall and customer viewing area with educational signs that tie into the trail system in the neighborhood. A ribbon cutting is planned for the summer.



Thank you!

Contact me:

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[facebook.com/aegreenbuilding](https://www.facebook.com/aegreenbuilding)



**Customer Driven.
Community Focused.SM**

