GRoW Buffalo

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U.S. Department of Energy Solar Decathlon 2015

Final Report

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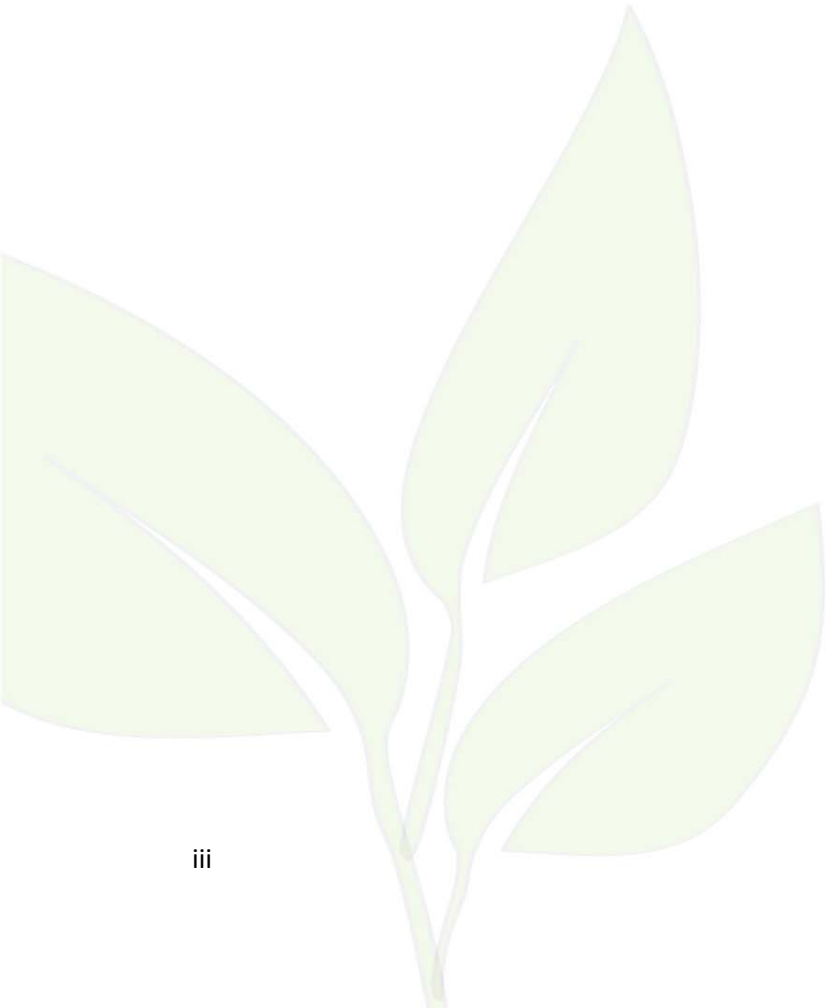

FUNDRAISING

a. Getting Sponsorship

To fund such an intensive project, the GRoW Team needed to gather a large sponsorship base over the course of the project. In 2.5 years, over 65 sponsors donated funds, materials, time, and expertise.

The first step to sponsorship is, of course, finding sponsors. Students and faculty spent time cold calling, emailing, and visiting different companies to ask them to be sponsors for the project. University faculty and staff looked for connections from their past experiences.

The Office of Corporate and Foundation Relations at UB played a significant role in gaining many of the GRoW Team's sponsors. Each week, the team met with them to discuss a strategic plan for public outreach, and then a plan for fundraising. The purpose of this office at UB is to contact corporations for funding for the University, so their connections and experience made up the majority of our sponsorship base. These connections were often larger, national corporations, so they were able to provide more support. The companies found through the Office of Corporate and Foundation Relations were given incentive to sponsor the GRoW Project because of tax returns given to them for donations to a University project. Through various connections and business contacting, the GRoW Home donors have been the backbone of the project. Without them, it would not have been a success.

To start off, the Department of Energy gave every team entering the Solar Decathlon $50,000. Also at the $50,000+ "Grove" sponsorship level were, the New York State Department of Energy Research and Development Authority, Larkin Development, The New York Power Authority and the President's Circle Fund at the University at Buffalo.

At the $25,000+ "Tree" sponsorship level, Montante Solar donated the warehouse space in which the GRoW Home was built. Without them, construction would have begun much later, or may not have been able to begin at all.
At the $10,000+ "Sapling" level, SolarCity donated the Silevo solar panels used to make the GRoW Home a powerhouse in energy production.

Thermal Foams Inc., another sponsor, came in at the $5,000+ "Sprout" sponsorship level. They gave the GRoW team a discount on the Structurally Insulated Panels that insulated the home. Without their donation, the GRoW Home would not have been able to use SIP walls, and therefore not have been nearly as energy efficient.

Last, but not least, L.P. Ciminelli contributed an immeasurable amount of time and expertise to this project. Over 2 years, they assigned three construction professionals and two carpenters to work with the project. Without their immense assistance, the GRoW Home, as it is, would not be a reality. L.P.C. earned their recognition as our only $100,000+ "Forest" level donor. In total, their help added up to over $125,000.

b. Salons

As an advertising and communication strategy, the GRoW team hosted Salons. Salons are events that allowed the house to be showcased to potential sponsors, and present crowds with more information. They were a way to have well-connected individuals bring their contacts to learn more about the project.

First, there time was dedicated to mingling and munching on finger food provided by the University. Then, the presentations started. The host of a Salon introduced themselves, and the project. After, Dean of Architecture and Planning Robert Shibley, faculty advisors Martha Bohm and Nick Rajkovich and Project Manager Chris Osterhoudt spoke about different aspects of the project. Other team members gave various presentations on specifics after, and then attendees were encouraged to ask questions, mingle more, and examine the beginnings of the GRoW Home.

These salons began in January 2015, at the same time construction started. UB Chief Sustainability Officer Ryan McPherson hosted the first Salon, and invited his connections, along with a lot of knowledge, to the Salon. It was extremely successful, and so, the Salons continued, each time with a different host.

The students and faculty of the GRoW Home met each week at development meetings, and would discuss who would be the most helpful individuals in the community to host a salon. The intention was to choose an individual who wanted to support the project with more than just funding and materials, but with connections.

A different, knowledgeable individual hosted each of the salons from then on. They allowed the GRoW team to meet new individuals that were interested in their project. Salons also proved to be a great advertising medium. Those who attended them would spread the word to the community.

In February of 2015, the GRoW Team hosted an event at the 464 Gallery on Buffalo's West Side. Susan Cholewa, a past teacher for GRoW Home Team member Michael Tuzzo, hosted the event. Since the event was held at a local art gallery, it went along the GRoW Home's value in tying the project to its grassroots origins. The event was social and casual with drinks, food, and lots of talking. Those who attended were mostly people who could have been considered part of the GRoW Home's target market: culturally creative individuals who enjoyed looking at art while talking about environmental sustainability.

Susan Cholewa donated the 464 Gallery space, so the only cost to the GRoW Team was food and drinks. After cost deductions, the total profits in entrance fees to the event totaled $1,100.

For many of the later salons, when the house was more complete, team members would give tours to attendees with displays on easels in the modules of the home. Each displays had photos and descriptions of what would be in that area of the home once it was built.

c. Crowd Funding Campaign and T-shirts

In February this year, the GRoW team, UB Department of Communication, and Division of University Communications partnered together to begin a crowd funding campaign that set out to raise a goal of $15,000 (the GRoW Team was able to successfully raise $30,000). The team managed to reach their goal within a month, and gathered over 300 donors. The expertise of the Department and the Division, in collaboration with the hard work of students and faculty, allowed them to reach this goal through strategic planning.

First, they arranged an email campaign to the family and friends of each student team member, and each faculty advisor. Each team member was expected to send, in bulk, three different emails at strategic times. There were two reasons for this. First, sending out three emails at different times refresh the minds of the donors. It reminds them to continue to help (since they were friends and family). Second, amassing an amount of money from friends and family before the campaign was made public encouraged people to donate. If the public sees that a campaign has already been successful, they have more faith that their money will be used appropriately. From just friends and family, before the campaign went public, the GRoW Team amassed close to $10,000.

The campaign was put on the "UB Giving" website, in order to give more outreach. Alumni from the Architecture and Planning Department at the University were each sent an email as part of the email campaign.

The second crowd funding campaign was held in September. This one had a goal of $15,000, but with a wider outreach. This time, the Communication Department contacted the alumni in both the Architecture and Planning department and the Engineering Department. The wider outreach allowed the GRoW Team to go above their $15,000 goal, again in only a month.

The September campaign had 150 donors, and was further assisted by social media and giveaways more than the previous campaign in February. Every day, the crowd funding campaign was posted on different social media forms, such as Facebook, Instagram, Twitter, and the "UB Giving" website. Every 10^{th} donor in the September campaign was given a free "Solar Buffalo" T-shirt. This t-shirt doubled as another communication strategy.

Ordering t-shirts for the GRoW Home was a big step in the project advertising and branding. The shirts, designed by Buffalo Freelance Graphic Designer Amy Ozay, display the image of a Buffalo with the pattern of a solar panel within. On the back, the GRoW Team label is printed.

This design symbolized more than publicity for the GRoW team. It gave the project a connection to solar power in Buffalo. Due to the Buffalo climate (cloudy and snowy), many Buffalonians have doubts about the functionality of solar power in their city. The GRoW Home defies that notion, and the Solar Buffalo T-shirts displayed it.

The design also allowed the team to have a wider outreach than just those who were interested in the GRoW Home. Since the Solar Buffalo was the prominent feature, more people became interested in that they support Buffalo, and improving its sustainability. The GRoW Brand became associated with improvement of the Buffalo community, and GRoW formed a stronger connection between the GRoW Home and its city of origin.

This broader outreach to the Buffalo community affected donations. At each event the GRoW Home was a part of, the Solar Buffalo T-shirt was available for a $20 donation. Occasionally, there were sales and decreases in prices, but usually the shirts each brought in $20. That money added up, and allowed the team to finally begin to make a profit off of the shirts, after selling less than a quarter of them.

d. Lessons Learned

Fundraising was, overall, the most difficult and time-consuming portion of the Solar Decathlon. $863,000, the GRoW Buffalo team's final project budget including 10% contingency, is an incredible amount of money to fundraise with just students and a few faculty members. The Office of Corporate and Foundation Relations at UB played a significant role in gaining many of the GRoW Team's sponsors, and therefore much of the in-kind donations and cash flow, but the team's best executed fundraising technique were the crowd-funding campaigns.

In particular, the second crowd-funding campaign, in September of 2015 was the most organized. The team members sent out three different emails to friends and family members, at certain distances apart, in order to gain the maximum amount of money *before* the campaign even begins. This way, visitors to the crowd-funding website will see the success of the campaign, and be more willing to donate because they perceive the campaign to already be a success. It is human nature to want to contribute to, or be a part of something successful. Every day, and sometimes twice a day, social media followers were encouraged to donate. In this way, the team was able to raise $15,000 from only 150 donors.

MEDIA OUTREACH

Using traditional reporting methods to the advantage of the project, the team has had a number of online articles written about the house and video and broadcast stories published. Some of the stories were pursued by the team, but many times reporters approached team members about doing a story, showing that there is an interest in the project. The publicity helped the team achieve personal communication goals, but also helped achieve goals of spreading the research-based reputation of UB and the design build focus of the B/a+p program.

Below is a comprehensive list of publications:

UB to Design Solar-Powered House for Competition: Will Find Permanent Home in Buffalo by *Buffalo Rising*
http://buffalorising.com/2014/02/ub-to-design-solar-powered-house-forcompetition-will-find-permanent-home-in-buffalo/

UB hopes solar house is a green model by *Buffalo Business First.*
http://www.bizjournals.com/buffalo/blog/morning_roundup/2014/02/ub-to-spend-1-million-on-solar-house.html

UB students design house with Buffalo gardener or urban farmer in mind by *Buffalo Niagara Gardening Magazine*
http://www.buffalo-niagaragardening.com/2014/10/07/ub-students-design-house-with-buffalo-gardener-or-urban-farmer-in-mind/

Gardening and More: Growing food indoors is part of home at UB GROW by Connie Stofko, Springville Journal http://springvillejournal.com/gardening-and-more-growing-food-indoors-is-part-of-home-at-ub-grow/

Help Send the UB Architecture Solar Decathlon House to California by *Buffalo Rising*
http://buffalorising.com/2015/02/help-send-the-ub-architecture-solar-decathlon-house-to-california

University at Buffalo, The State University of New York GRoW's a Solar House by *Solar Decathlon Blog*
http://www.solardecathlon.gov/blog/archives/3836

Solar Decathlon 2015: U at Buffalo GRoWs Solar House- New Roster by *Clean Technica*
http://cleantechnica.com/2015/02/06/solar-decathlon-2015-u-buffalo-grows-solar-house-new-roster/

GRoW house lands UB a spot in national Solar Decathlon by Niagara Frontier Publications
http://www.wnypapers.com/news/article/current/2014/02/17/114884/grow-house-lands-ub-a-spot-in-national-solar-decathlon

Help Support the GRoW Initiative by *Buffalo Rising*
http://buffalorising.com/2015/02/help-support-the-grow-initiative/

Nature Watch: UB students building GRoW Home to compete in Solar Decathlon by *The Buffalo News* http://www.buffalonews.com/opinion/nature-science/nature-watch-ub-students-building-grow-home-to-compete-in-solar-decathlon-20150308

What's New Buffalo? - GRoW Home Architectural Walkthrough The University… by *Sun Times Network.* http://buffalo.suntimes.com/buf-politics-government/7/116/96096/whats-new-buffalo-grow-home-architectural-walkthrough-the-university

GRow Home Architectural Walkthrough by *What's New Buffalo.* This article features our architectural walkthrough video. http://whatsnewbuffalo.com/post/113964794305/grow-home-architectural-walkthrough-the-university

UB solar house selected to be part of federal competition by *WBFO 88.7.* This article features Assistant Professor, Martha Bohm, on air with WBFO's Jay Moran. http://news.wbfo.org/post/ub-solar-house-selected-be-part-federal-competition

UB students look to make home solely powered by solar energy by *WIVB 4.* This article features a 1:29min video of students working at the warehouse and interviews with several student team members. http://wivb.com/2015/03/24/ub-students-seeking-top-prize-for-solar-home/

UB Students Building Home Powered Completely by Solar Energy by *Time Warner Cable News.* This article features a 2:13min video of students working at the warehouse and interviews with students and faculty. http://www.twcnews.com/nys/buffalo/news/2015/03/24/solar-grow-home.html#

SUNY-ESF students collaborate to design, build highly efficient solar house for solar decathlon by *The Daily Orange* http://dailyorange.com/2015/03/suny-esf-students-collaborate-to-design-build-highly-efficient-solar-house-for-solar-decathlon/

This Season-Shifting Solar House Is Surrounded by A Greenhouse by *Fast Company* http://www.fastcoexist.com/3044394/this-season-shifting-solar-house-is-surrounded-by-a-greenhouse

University at Buffalo Enters Solar Decathlon by *Time Warner Cable News.* This article features a 1:38min video of students working at the warehouse and interviews with students and faculty. http://www.ny1.com/nys/watertown/news/2015/04/12/university-of-buffalo-enters-solar-decathlon-.html#

UB's Grow Home Students Construct Solar House by *WKBW.* This features an interview with students and faculty that was aired on WKBW's AM Buffalo. http://www.wkbw.com/am-buffalo/ubs-grow-home

Model Home Promotes Urban Farming by *Buffalo Magazine (The Buffalo News).* http://buffalo.com/2015/07/26/buffalo-magazine/model-home-promotes-urban-farming/

Ultra-efficient UB GRoW Home a model for the future by *WBFO 88.7*. This features an interview with students and faculty that was aired on WBFO 88.7 in three intervals. http://news.wbfo.org/post/ultra-efficient-ub-grow-home-model-future

UB solar-efficient home headed to California for global competition by *Buffalo Business First.* http://www.bizjournals.com/buffalo/blog/morning_roundup/2015/08/ub-solar-efficienthome-headed-to-california-for.html

Thinking About Taking Your Home to the Solar-level? by *Time Warner Cable News (Central New York).* This features a video with some architectural walkthrough, and a voiceover summary of the features of the GRoW Home and the team. http://www.twcnews.com/nys/central-ny/going-green/2015/08/31/grow-home.html#

UB Students Star in Green Home Design by *Buffalo Spree (September 2015).* A three-page article of GRoW Home that contains pictures of students working at the construction site. https://drive.google.com/file/d/0B-IXrjs55SpyQVpsQW50YVk2U3Z2bFphV0ZRdkw5WkJDZXlZ/view?usp=sharing (link to PDF of article, taken with phone camera scanner)

Energy savings baked in by *Buffalo News.* Refer to google drive link for scanned PDF: https://drive.google.com/file/d/0B-IXrjs55SpyeGhQUGVYTE1ranI0T1E4dVIyUlhITTc3R3BN/view?usp=sharing

UB Architecture Students to Head West for GRoW Home Solar Decathlon by *Time Warner Cable News (Buffalo).* This article has a video that features interviews with students and faculty and snippets of students doing construction. http://www.twcnews.com/nys/buffalo/news/2015/09/11/ub-grow-home-solar-decathlon.html

UB team builds home that makes energy by *WIVB.com (News 4)*. This article has a video that features interviews with students and faculty and snippets of students doing construction. http://wivb.com/2015/09/11/ub-team-builds-home-that-makes-energy/

U at Buffalo, State University of New York. Informational article with renders by the Official Solar Decathlon website. http://www.solardecathlon.gov/2015/competition-team-u-at-buffalo.html

2015 Solar Decathlon: GRoW Home by Architect Magazine. http://www.architectmagazine.com/project-gallery/2015-solar-decathlon-grow-home_o

Students Design Efficient Furniture for Solar House Competition by *Architectural Digest.* http://www.architecturaldigest.com/gallery/energy-efficient-house-furniture

Eco-friendly 'GRoW Home' competes in Solar Decathlon by Time Warner Cable News Central NY http://www.twcnews.com/nys/central-ny/going-green/2015/10/5/university-at-buffalo-grow-home-solar-decathlon.html

Stunning solar-powered GRoW Home has a thriving veggie greenhouse at its core by *inhabitat.* http://inhabitat.com/ultra-efficient-grow-home-stays-green-year-round-with-solar-and-thermal-energy/

UB students compete in national solar competition by *WGRZ.com Channel 2*. This article features a 42-second video that features UB GRoW Home and an interview with team members http://www.wgrz.com/story/news/education/2015/10/10/ub-students-compete-in-national-solar-competition/73762666/

UB and Alfred State Compete in Solar Decathlon by *Time Warner Cable News Buffalo.* This article features a 39-second video mentioning both UB's and Alfred State's participation in the Solar Decathlon 2015. http://www.twcnews.com/nys/buffalo/news/2015/10/11/ub-and-alfred-state-compete-in-solar-decathlon.html

College students compete in solar decathlon to promote 'green' living by *WDTN Channel 2 news.* http://wdtn.com/2015/10/11/college-students-compete-in-solar-decathlon-to-promote-green-living/

WNY students compete in solar decathlon in California, promotes 'green' living by WIVB.com Channel 4. This article features interviews with GRoW Home and Alfred State team members at the Solar Decathlon 2015. wivb.com/2015/10/11/wny-students-compete-in-solar-decathlon-in-california-promotes-green-living/

GRoW Home: Merging Greenhouse and Home by *Builder.* This article features a video interview about the GRoW Home and GRoWlarium with GRoW Home's Project Manager. http://www.builderonline.com/videos/grow-home-merging-greenhouse-and-home?utm_source=newsletter&utm_content=Video&utm_medium=email&utm_campaign=BBU_101615%20(1)&he=e063ba2655f1043dee34afea1201708049e9af71

University at Buffalo takes second place at Solar Decathlon by *WIVB Channel 4.* http://wivb.com/2015/10/17/university-at-buffalo-takes-second-place-at-solar-decathlon/

Solar home earns recognition for UB by *WBFO88.7.* http://news.wbfo.org/post/solar-home-earns-recognition-ub#stream/0

University at Buffalo takes second place in national Solar Decathlon by *The Buffalo News* http://www.buffalonews.com/city-region/university-at-buffalo/university-of-buffalo-takes-second-place-in-national-solar-decathlon-20151018

University at Buffalo takes second place in National Energy Competition by *Time Warner Cable News* http://www.twcnews.com/nys/buffalo/news/2015/10/18/ub-tophonors-energy-competition.html

UB's energy-efficient home takes second place in competition by *Buffalo Business First* http://www.bizjournals.com/buffalo/news/2015/10/20/ubs-energyefficient-home-takes-second-place-in.html

These 14 Sleek Solar Homes Do More Than Produce Power by *National Geographic* http://news.nationalgeographic.com/energy/2015/10/151009-14-Sleek-Solar-Homes-Do-More-Than-Produce-Power/

An Eco-Friendly Prototype whose Furniture Maximizes Energy Efficiency by *Dwell* http://www.dwell.com/house-tours/article/eco-friendly-prototype-whose-furniture-maximizes-energy-efficiency

UB's Solar Decathlon project - GRoW Home by *Buffalo Rising* http://buffalorising.com/2015/10/ubs-solar-decathlon-project-grow-home/

GRoW Home: Merging Greenhouse and Home by Architect Magazine. This article features a video interview about the GRoW Home and GRoWlarium with GRoW Home's Project Manager. http://www.architectmagazine.com/videos/grow-home-merging-greenhouse-and-home

GRoW Home: Merging Greenhouse and Home by *ECO Building Pulse.* The GRoW Home, among other Solar Decathlon 2015 houses, is one of the featured articles of this e-zine to subscribers. Click here for link to email overview: http://links.hanleywood.mkt6839.com/servlet/MailView?ms=MjM3OTQxODYS1&r=MTAyNzg4MjcwMzQ2S0&j=NjYyMDU2MjEyS0&mt=1&rt=0. Click here for direct link to feature on GRoW Home: http://www.ecobuildingpulse.com/videos/grow-home-merging-greenhouse-and-home?utm_source=newsletter&utm_content=Video&utm_medium=email&utm_campaign=EBP_102015%20(1)&he=6b79ecd12944432cefd983378722aede4dbd1aa7

University at Buffalo takes second place in national Solar Decathlon by *UB News Centre (http://www.buffalo.edu/news/releases/2015/10/034.html),* republished on *HCs Design and Architecture.* http://hcsdesign.info/ubs-grow-home-takes-2nd-in-us-department-of-energy-solar-decathlon.html

The UB GRoW Home Is Underway In The National Solar Decathlon - BE Is A Sponsor And Advisor For The Students by *Buffalo Energy.* http://begreenny.com/the-ub-grow-home-is-underway-in-the-national-solar-decathalon-be-is-a-sponsor-and-adviser-for-the-students/

UB's GRoW Home Take Second In US Department Of Energy Solar Decathlon by *UB News Centre (http://www.buffalo.edu/news/releases/2015/10/034.html),* republished on *Energy News Cyprus.* http://www.energynewscyprus.com/ubs-grow-home-takes-2nd-in-us-department-of-energy-solar-decathlon/

2015 Solar Decathlon by *Residential Architect, Volume 4, 2015.* The Solar Decathlon 2015 competition is featured from pp.34-56, and UB GRoW Home is featured on p.49. http://mydigimag.rrd.com/publication/?i=274161

Solar Decathlon 2015: What Builders Need to Know by *TecHome Builder.* The article focuses on the top 7 placed teams, and pictures from the top 14 teams. http://techomebuilder.com/emagazine-articles-1/what-you-can-learn-from-students-about-home-technology-from-solar-decathlon-2015/

Below are a selection of clippings from internal UB news sources:

"GRoW House" Lands UB a Spot in National Solar Decathlon by *UB News Centre*
http://www.buffalo.edu/news/releases/2014/02/016.html

"GRoW House" Lands UB a Spot in National Solar Decathlon by *UB Architecture Magazine*. A quarterly magazine that featured the GRoW Home and its participation in the Department of Energy Solar Decathlon
http://ap.buffalo.edu/content/dam/ap/3-News---Events/BapMagazine/BAP-Magazine-Spring2014-sm.pdf

Students start construction on solar house by *UB Reporter*

http://www.buffalo.edu/ubreporter/featured-stories.host.html/content/shared/university/ne_ws/ub-reporter-articles/stories/2015/02/grow_home.detail.html

Construction on UB's GRoW Home begins by *The Spectrum*
http://www.ubspectrum.com/article/2015/02/ub-grow-home

Media Advisory: Walls up! Construction is underway on UB's solar-powered GRoW Home by *UB News Center* http://www.buffalo.edu/news/releases/2015/03/030.html

Media Advisory: Bon Voyage, UB solar house! by *UB Reporter.*
http://www.buffalo.edu/ubreporter/campus/campus-host-page.host.html/content/shared/university/news/news-center-releases/2015/09/021.detail.html

It's show time for UB GRoW Home by UB Sustainability
https://www.buffalo.edu/sustainability/about/news-and-events/latest-news.host.html/content/shared/www/sustainability/articles/news-articles/it_s-show-time-for-the-ub-grow-home.detail.html

GRoW Home journey begins by *UB Reporter*.
http://www.buffalo.edu/ubreporter/campus.host.html/content/shared/university/news/ub-reporter-articles/stories/2015/09/grow_home_departs.detail.html

The smart, quirky trappings of a contemporary solar house by *UB News Center*.
http://www.buffalo.edu/news/releases/2015/09/054.html

UB's GRoW Home takes 2nd in U.S. Department of Energy Solar Decathlon by *UB News Center*.

http://www.buffalo.edu/news/releases/2015/10/034.html

ONLINE PRESENCE

Online communication was clear and far-reaching over many sites. The GRoW Home's website was the primary source of information. The site itself was interactive in that it had many features that allowed visitors to either skim through the important points quickly or to read in depth information about the technical details. It gives a comprehensive view of the project by including a team page with a number of the team members involved and a sponsorship page where all sponsors are listed in the hierarchy they fell into. It also provided information about the competition with links to the DOE's official sites, and information and links to the donation page and social media pages. The personal website was promoted in many ways, including the team's social media accounts and the university's website, emails, and social media accounts.

The team's social media presence was organic in accordance with the milestones of the project. Using outlets like Facebook, Instagram, Twitter, Snapchat, Flickr, and Vimeo to share updates allowed for a broader audience to be reached and makes the ideas mainstream through many familiar methods of communicating. Posts from the team's accounts were further spread across platforms by being shared by university and department social media pages. The GRoW Buffalo Facebook page has 964 likes to date, with posts that reach between several hundred to several thousand views. The team's Instagram account has 383 followers to date and Twitter has 289, who are made up of friends and family of the team, fellow students, and other individuals and organizations who are interested in sustainable building practices and the betterment of the Buffalo-Niagara region.

These social media sites were also plugs for the team website. The website is the main source of information on the project. It explains the home in terms of its conceptual design to its systems in detail. There is a section dedicated to the Decathlon with links to the DOE's sites to give important background information and reinforce the stature of this undertaking. It is also a forum for acknowledging the many forms of support the team has received on the page dedicated to sponsors, as well as having a page that links to the donation page run through UB's online donation page. The 'buffalo.edu' extension made the website simple and easy to remember, and was a part of the project's branding that connected to the University's. Other sections gave information on how people could get involved, and another featured team members themselves.

The website was operated through WordPress and was managed by various students with the guidance of the Architecture department's IT consultant, Doug Mccallum. The success of the site is apparent in the Google Analytics data showing the site had 7,594 sessions, 20,839 page views, and 4,481 visitors to date since March 3, 2015; although the website itself has been live since August of 2014. The website had approximately a 59.01% rate for first time visits to the page which came from 85 different countries, showing how far reaching the project was, and continues to be.

The website was edited and updated at several points throughout the project, generally for the purpose of deliverables and big outreach efforts that directed a lot of traffic to the page. There was a preliminary organization formatted by an intern during the summer of 2014 that was adapted as the project progressed. Reflecting on the management and process of updating the website, the system for updates could have been faster and more organic with the development of the home by implementing a more efficient system for editing and reviewing posts, and by having at least one student dedicated exclusively to the development of the website.

Online and face-to-face communications complemented each other and were interdependent. Increases in web traffic or engagement with posts on social media were positively correlated to important happening with the team and influxes of photos. Media outreach activities have included events such as salons and press releases where officials from the university, leaders of partnering corporations, professors and students gather to honor the project. These events were a good form of networking between all parties involved, whether they were corporate sponsors, university administration, students and faculty, or some combination of the three. An indirect result of these events was an increase in online interaction and an increase in donations.

ORGANIZER'S COMMUNICATION

The organizers were very efficient and understandable through their email and conference call outreach. Monthly conference calls provided valuable insight to logistics, code concerns, and overall competition management, and regular email follow ups provided us that information in multiple forms. Questions that the team had were regularly answered within 12 hours, providing a very strong line of communication and information.

Yahoo Groups, although seemingly irrelevant in the online world, provided an adequate form for file sharing and resources. At times, it was slightly confusing to find certain resources based on the file structure, especially with no search function.

Dropbox / Hightail proved very effective for file sharing, and should be maintained for future competitions. In conjunction, the deliverable status sheet was a vital resource to the team. In the future, perhaps there can be a way for the status sheet to automatically update itself from the dropbox website, so that teams can see instant results and not have to wait for the next version to be uploaded.

Resources from the Solar Decathlon 2013 proved to be incredibly helpful. It was valuable for the organizers to make this information available, however it was not made available for the Construction Document phase.

POST COMPETITION LIFE

The GRoW Home will not fall by the wayside just because it has completed its Solar Decathlon journey. In the spring of 2016, the home will be stationed on the UB South Campus and used as an exhibition for a minimum of three years. In that exhibition period, the GRoW Home will be used as a monument of achievement of what the UB Students and Faculty on the team have accomplished.

The University will use this three years of exhibition as a time to deliberate on where the permanent location of the GRoW Home will be, as it is converted to a Multiscalar Energy Research and Education Center (MEREC) by the summer of 2019. The three primary goals of MEREC are to conduct federal and state grant funded research, create education courses to help develop expertise in energy systems, and provide consulting services to local professionals for improved energy performance and climate resilience in local communities.

The GRoW Home turned MEREC will be a host to research into energy performance, and goes hand-in-hand with the University at Buffalo's support of environmental research and education through the RENEW Institute, which investigates energy, the environment and water. The structure is also intended for use with graduate research groups within the Department of Architecture.

Seminar courses and continuing education courses are also a possibility at MEREC. Learning would focus on energy efficiency, renewable energy, and climate resilience, building controls, and greenhouse. The home could also be open for educational opportunities for K-12 schools in the Buffalo community, other college students, and other organizations for learning opportunities.

As MEREC, the GRoW Home will not have lost its design appeal. Therefore, it could house receptions after guest speaker events at the University, or could host "master classes" with speakers as well. MEREC will be organized as a subsidiary of the UB Regional Institute with the School of Architecture and Planning. This will allow MEREC to have with experienced administrative and staff support and assistance with other needs to continue to be successful in the future.

The conversion from GRoW Home to MEREC was influenced by the Energy Efficiency Center at the University of California-Davis and the Pacific Gas and Electric Company (PG&E) Pacific Energy Center (PEC). The GRoW team spoke to representatives from both U.C. Davis and PG&E about the strategy in opening up a successful energy center. PG&E graciously gave the team the original business plans for the PEC, which will be used as a reference in the conversion process to MEREC.

To use the new research and education center successfully, program evaluations have been put together. The research conducted in the center will be evaluated by how much external funding they are able to attract, and if their research results are published. The education and outreach success will be evaluated by reviewing collected metrics on events to determine if re-funding is wise.

MEREC intends to collaborate with many other UB research institutions on its future projects, but is also a part of three current research projects. The first is the Solar Decathlon; The second, on Climate Resilience in Cleveland, Ohio ($100,000 funded by the Kresge Foundation); And the third, on Building Sector Climate Impacts and Adaptation ($267,000, funded by the New York State Energy Research and Development Authority).

The GRoW Home and, in the future, MEREC, has forged many relationships with companies through sponsorships from the Solar Decathlon. These sponsors care about the future of the GRoW Home, and its impact in improving Western New York. Therefore, MEREC has created a plan of numerous community outreach and engagement strategies to keep a strong connection to the surrounding community in the future. This keeps with the original values of the GRoW Home, and will make MEREC an integral part of the greater Buffalo area.

SUGGESTED IMPROVEMENTS

a. Location

The location of Solar Decathlon 2015 in Irvine made it strategically difficult to succeed in many ways. First is the obvious lack of presence of Western New York companies in the Southern California region. Local companies and manufacturers made up for a large percentage of in kind and material donations for the GRoW Home, and although we were able to display their names and logos in Irvine, these companies will not benefit much, if at all, from the recognition in a region they do not perform business. Additionally, Irvine itself is little known when compared to other cities across the country, which is disappointing for a competition that prides itself in hosting international schools and sponsors. Essentially located in a commercial park in the rich suburbs of a major city an hour away has also obviously had an impact on public attendance, especially when compared to the Washington Mall. It is a destination far out of the way for anyone other than the residents of Irvine.

The location changes from east coast to west coast is also less than ideal. Washington DC was not ideal for any university from the west coast, and Irvine is not ideal for any team on the east coast. Although this makes sense to give certain regions of the country more opportunity for representation at the competition, it does not prove to provide fair opportunities every cycle.

A more prominent central location for the competition (ie Chicago, Denver, Dallas) could provide more opportunities for all regional scale companies to market and potentially see growth, provide a fair and more equal distance for all competing teams to travel, as well as provide a more widely known venue that would result in more visitors.

b. Concepts

As described in depth in an online article (http://www.archdaily.com/776436/from-dusk-to-new-dawn-how-the-solar-decathlon-can-be-saved?utm_source=dlvr.it&utm_medium=twitter), the concept and basic mission statement of the Solar Decathlon has become outdated. In today's society, although emphasis remains high on solar power, the idea of sustainable living and building has expanded far beyond just solar panels on a high tech home (which was indeed innovative and very forward thinking for 2002). As an example, the idea of passive design strategies not only provide a more evocative and engaging design theory, but also relates to how the human body handles climate change and adapts to the surroundings on a seasonal basis. Passive design also relates much more to the idea of living sustainably, by promoting architecture and systems that work directly in conjunction with the surrounding environment, as opposed to against it. This not only begins to undermine the temperature requirements of the thermal comfort zone, but also calls into question why this is not a focus, or a check box, for any of the juries. This is just one example, to go with others in the provided link, and is the underlying reason for the GRoW Home striving to redefine what an ultra efficient home may be.