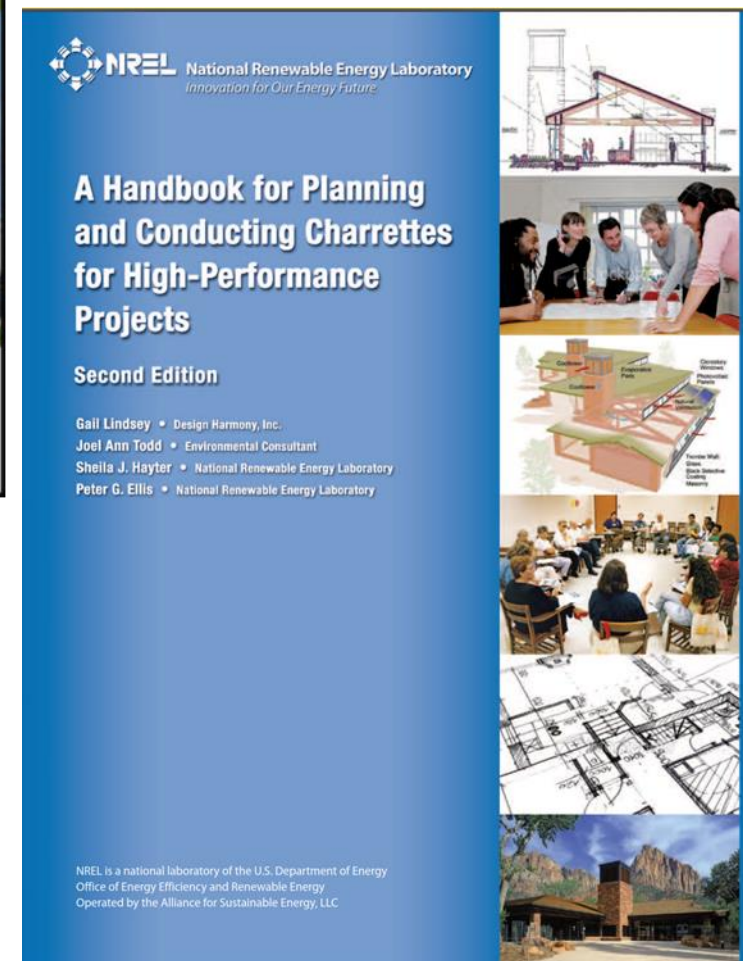
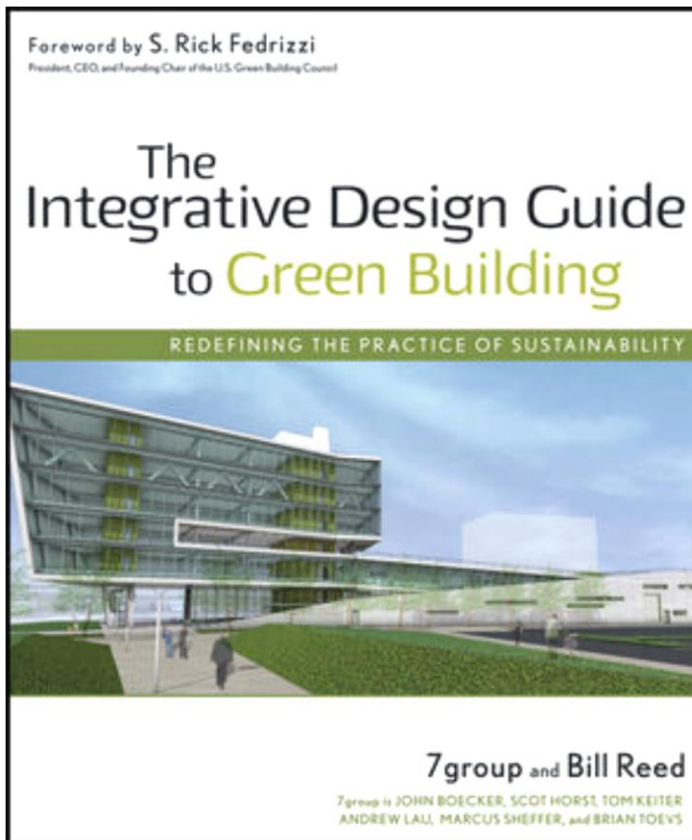


# The Goal-Setting Charrette

جلسه هشتم- مبانی طراحی محیطی، نظریه ها و روشها

اردیبهشت ماه 1398



# Introduction

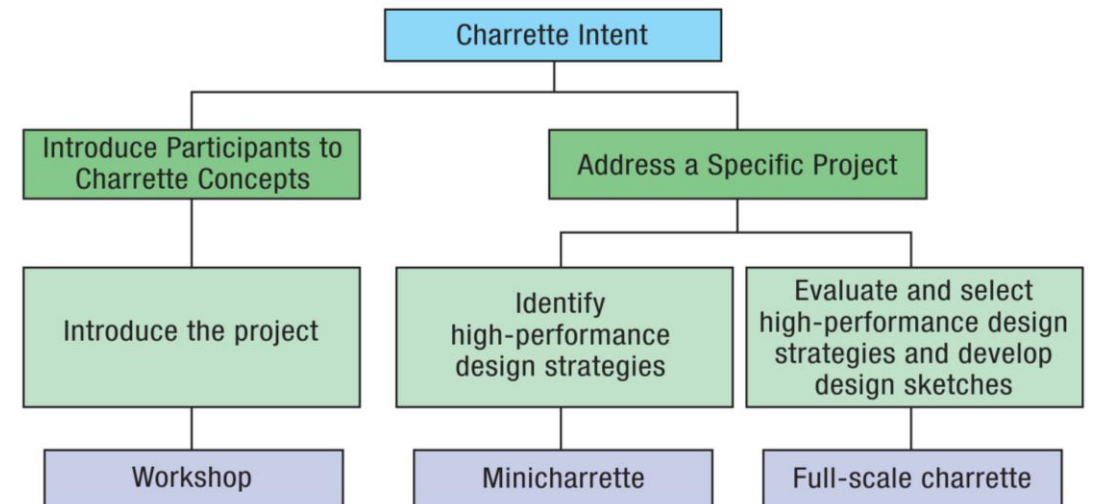
- Design charrette introduction
  - Who to invite
  - How to facilitate discussions
  - Codes of conducts
  - Logistics
- The Goal Setting Workshop
  - Tasks and activities
  - Principles and measurements
  - Cost Analysis
  - Schedule and next steps



# Design Charrettes



Ecole des Beaux-Arts - Paris, France



# Speakers that you can invite:

---

- Kickoff speaker(s) to energize and excite participants
- Local dignitaries to demonstrate support
- Content Experts for specific topics to be addressed, such as energy and materials.
- Case Study speakers to share previous experience gained from actual projects.



# Tip/Tools for good Facilitation

Tip / Tool	Description	Purpose
Check-ins	Participants introduce themselves, give personal anecdote, or state goal for meeting	Personalize setting, get on same page, break ice, and set context
Check-outs	Participants comment on their experiences	Chance to express concluding remarks and achieve sense of closure
Ice-breakers	Game or activity	Introductions, ease people into group setting, and stimulate discussion
Team values or Code of Conduct	Establish team's ground rules with input from all participants	Create common understanding, promote a respectful environment, and provide a means to prevent or resolve disputes
Brainstorming	Technique for generating ideas in low-risk environment	Generate new ideas, stimulate creative and lateral thinking, get input from everyone
Parking lot	List to track issues that arise but are off-topic	Keeps discussion focused without forgetting important issues
Mirroring	Facilitator repeats what a participant has said verbatim	Ensures that people are heard, builds trust, can speed up brainstorming
Paraphrasing	Facilitator repeats what a participant has said in his/her own words	Ensures that people feel heard and understood, can clarify meaning

Tip / Tool	Description	Purpose
Multi-modal learning	Use of different styles of learning and participation, including visual, auditory, and written	Reflects participants' different learning styles, maximizing learning and input
Positions versus interests	Facilitator may be able to draw out underlying motives beneath a participant's position (iceberg analogy)	Highlights common ground between positions that appear conflicting or polarized
Go-around	Technique of 'going around the room' or table one-by-one to hear from everyone. Can continue until everyone has passed, indicating that they have nothing more to add	Ensures that everyone has a chance to speak, and prevents domination of discussion; participants can listen effectively knowing that they will have a turn to speak
Negative poll	Ask for a show of hands to determine who disagrees with a statement	Can allow for fast decision-making and consensus-building
Open-ended questions	Broad questions typically beginning with "how", "what", or "why"	Encourages participants to share their perspectives
Probing questions	Questions or statements such as "Can you give an example?" or "Could you elaborate on that?"	Encourages participants to provide more information
Thumb-o-meter <sup>1</sup>	Ask for thumbs up, down, or sideways to indicate levels of agreement	Quick way to get feedback from participants
Hot dots	A method of prioritizing using adhesive dots: participants are given a certain number of dots to place beside a certain number of choices	Used to get a sense of the group's collective priorities without making a final selection or decision

# Code of Conducts in IPD charrettes

- Active Listening
- Respect of other Ideas
- Start and end on-time
- Open sharing of ideas and perspectives
- Serve the best interest of the group



# Logistics

- Assemble and Distribute Resource Materials
  - Event specific information:
    - Final agenda
    - List of sponsors and contact information
    - List of participants and contact information
    - List of presenters with bios and contact information
    - List of exhibitors
  - Project Information (+site printouts)
  - Predesign energy analysis results
  - Handouts For Technical presentations
  - Case studies of similar high-performance projects
  - Resources (useful Web sites, articles about local green buildings, ....)
  - Evaluation forms



**AGENDA** HUBBUB AT CITYHALL  
Friday, November 29, 2013

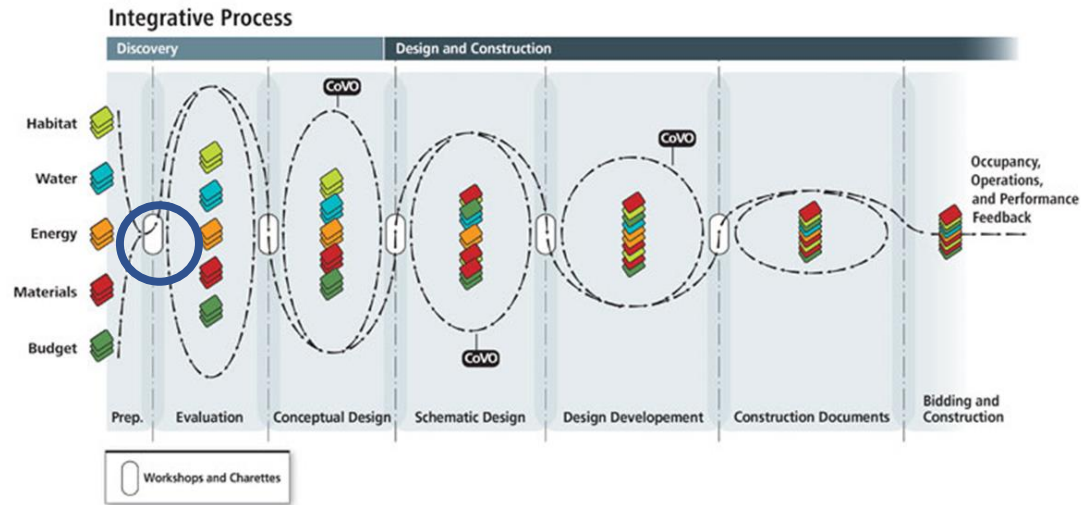
Dialogue				
10:00	(30 min)	Registration	Arrival, name tags, bingo	Town Hall
10:30	(15 min)	Welcome	Lena Soots "What's all the hubbub about"	Town Hall
10:45	(45 min)	Project Presentations + City Staff Responses	Feeding the City: Local Food + Food Recovery Safe City: Health + Inclusion Zero Waste City Active City: Transportation + Walkability Happy City: Design + Placemaking	Town Hall
11:30	(60 min)	Dialogue	Five breakout themes	Various Rooms
Lunch				
12:30	(60 min)	Food Truck Lunch	Bring lunch money! Eat at the Long Table.	Town Hall
Design				
1:30	(90 min)	Design Workshop	What should we be working on? Create a poster for the next big project	Town Hall
3:00	(30 min)	Post + Share Ideas		Town Hall
3:30	(30 min)	Closing	See you at the Hullabaloo!	Town Hall
6:00	(3 hours)	CityStudio Holiday Party	Hullabaloo Party at Lost+Found	Town Hall

## **Lead by Example**

Employ green practices when preparing participant materials:

- Use recycled paper.
- Make double-sided copies of everything except site information and other charrette working materials.
- Use notebooks or folders made of recycled or environmentally preferable materials (e.g., recycled cardboard).
- Avoid using paper when possible:
  - Give Web site addresses and information about how to order materials instead of providing all the materials.
  - Make examples of supplemental materials such as brochures and flyers available at the resource table.
  - Distribute advance materials (such as project information and predesign energy analysis results) electronically by e-mail or Web site.
- Collect name tags for use at the next event.
- Provide recycling bins for paper, cans, bottles, and composting.





## Stage A.2

### Workshop No. 1: Alignment of Purpose and Goal-Setting

#### A.2.1 Workshop No. 1: Tasks and Activities

- Introduce participants to the fundamentals of the integrative design process and to systems thinking
- Elicit client's deeper intentions and purpose for the project
- Engage Touchstones exercise to elicit stakeholders' values and aspirations
- Clarify functional and programmatic goals
- Establish initial Principles, Metrics, Benchmarks, and Performance Targets for the four key subsystems:
  - Habitat
  - Water
  - Energy
  - Materials
- Generate potential strategies for achieving identified Performance Targets
- Determine order-of-magnitude cost impacts of proposed strategies
- Provide time for reflection and feedback from client and team members
- Develop an Integrative Process Road Map that identifies responsibilities, deliverables, and dates
- Commissioning: Initiate documentation of the Owner's Project Requirements (OPR)

#### A.2.2 Principles and Measurement

- Document Touchstones, Principles, Metrics, Benchmarks, and Performance Targets from Workshop No. 1

#### A.2.3 Cost Analysis

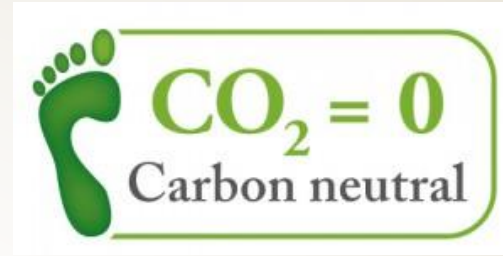
- Document order-of-magnitude cost impacts of proposed strategies to reflect input from Workshop No. 1

#### A.2.4 Schedule and Next Steps

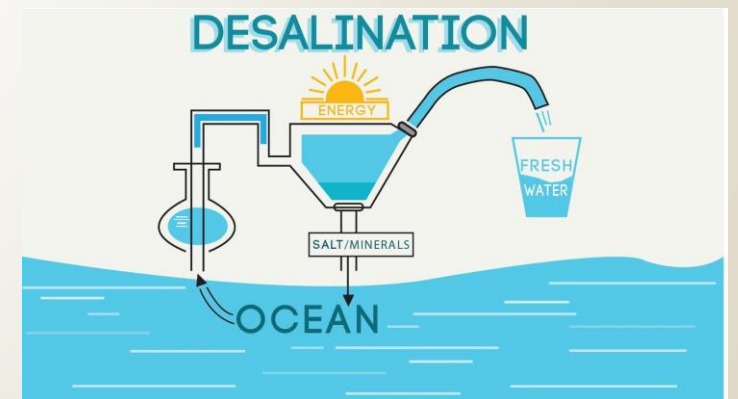
- Adjust Integrative Process Road Map to reflect input from Workshop No. 1
- Distribute Workshop No. 1 report

# The Goal Setting Workshop

# Alignment of Purpose and Goal-Setting

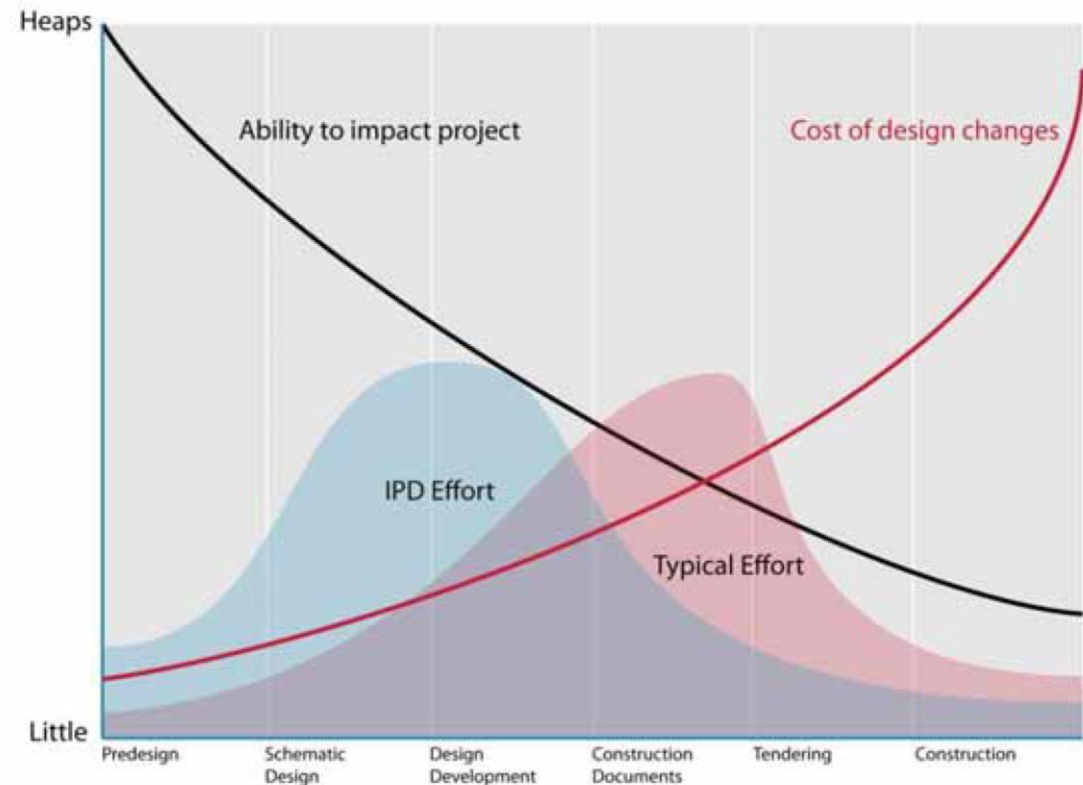


Stage A2



# Introducing Participants to the fundamentals of IPD and Systems Thinking

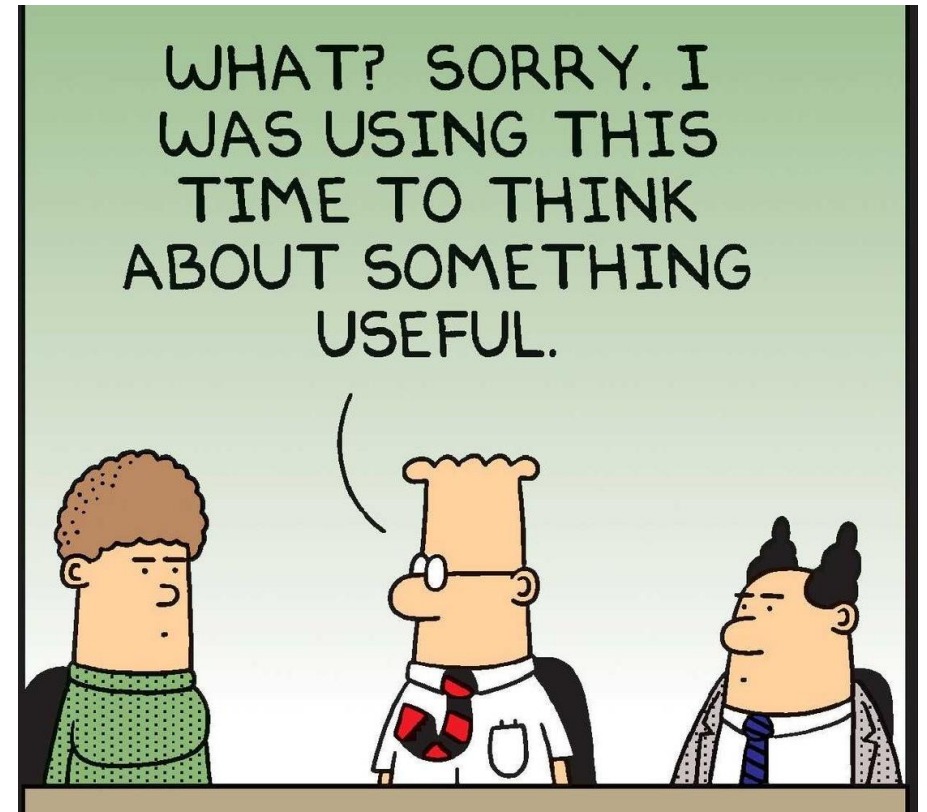
- Structured
- Inclusive
- Non-traditional Expertise
- Collaborative
- Holistic or Systemic thinking
- Whole building budget setting
- Iterative
- Looking for Synergies
- Continuous learning and improvements
- Outcome oriented



The MacLeamy Curve

# Elicit participants' deeper intentions for the project

- A truly integrative process is not just passing information back and forth but actually creating something together and collectively identifying and holding onto principles and core values-purpose.
- How would a successful project be defined for this place not only at this time, but also for its evolution into the future?
- Spend some time reflecting on how the project can help the client move toward achieving their deepest purpose.
- Each team member becomes more engaged on a personal level. The project is no longer just another building project or a job.



# The “Touchstone” Exercise

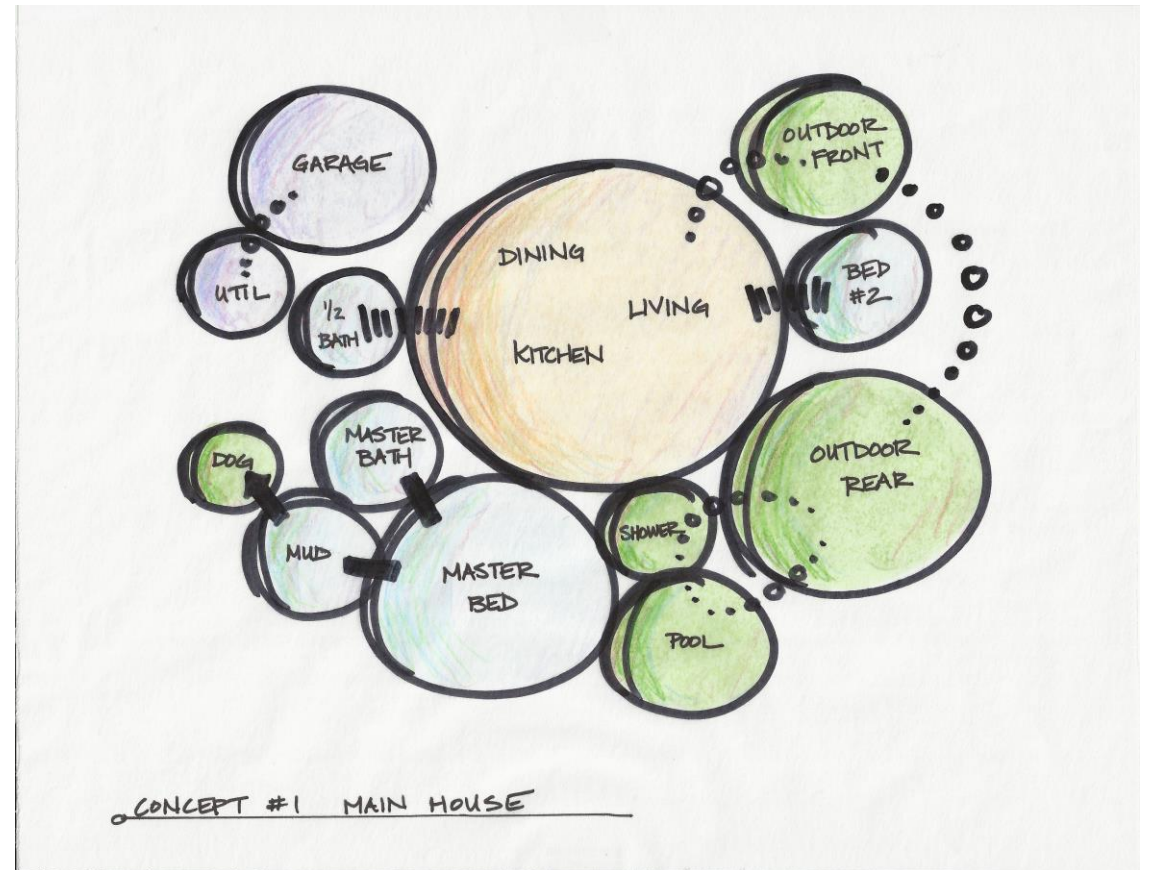
- Identifying the team’s values through the lens of the following five key environmental imperatives:
  - Climate Change
  - Potable water
  - Resource destruction
  - Habitat destruction
  - Pollution and toxins
- Open a discussion about how teams think a successful project would address each of these issues.
- The results contribute to creating the owner’s Project Requirement.
- The story of Phipps Conservatory
- It is useful to have “**champions**”.



	Design Elements/Issues	# of votes
1.	Financially sustainable	85
2.	Functional efficiency that encourages team collaboration	75
3.	Building as a teaching/research tool	65
4.	Transferability to the market	56
5.	Model for beyond green	50
6.	Quantifiable results over building life cycle	39
7.	Pittsburgh’s new icon of sustainable development	37
8.	Dissolve the boundaries between inside and outside	34
9.	Systems transparent to the public/visitors	31
10.	Provide a roadmap for improving future sustainable projects	31
11.	Demonstrate the connection between buildings and the environment	31
12.	Inform the development of future codes	28
13.	Influence societal behavior	27
14.	Beacon of hope related to climate change	25
15.	Create a destination venue	24
16.	Flexible/adaptable design	24
17.	Optimization of project’s structure with the site	23
18.	Demonstrate achievement of the triple bottom line	22
19.	Expand project boundaries to improve health of the regional ecosystem	21
20.	Memorable spatial experience	14
21.	Encourage the question of sustainable	13
22.	Dynamic building information model	11
23.	Spark to ignite change	11
24.	Create clear linkages with adjacent park/universities/local amenities	11
25.	Engage the larger public in design and planning	11
26.	Catalyst for future innovations	9
27.	Showcase the integrative design process	8
28.	Zero construction waste	8
29.	Tangible example of the effects of human/environment interface	7
30.	Redefining building health	7
31.	Incorporate biomimicry	7

# Clarify Functional And Programmatic Goals

- Verify and clarify the conventional functional program- space and site functions,
- area quantities,
- Adjacencies,
- Parking requirements, etc.

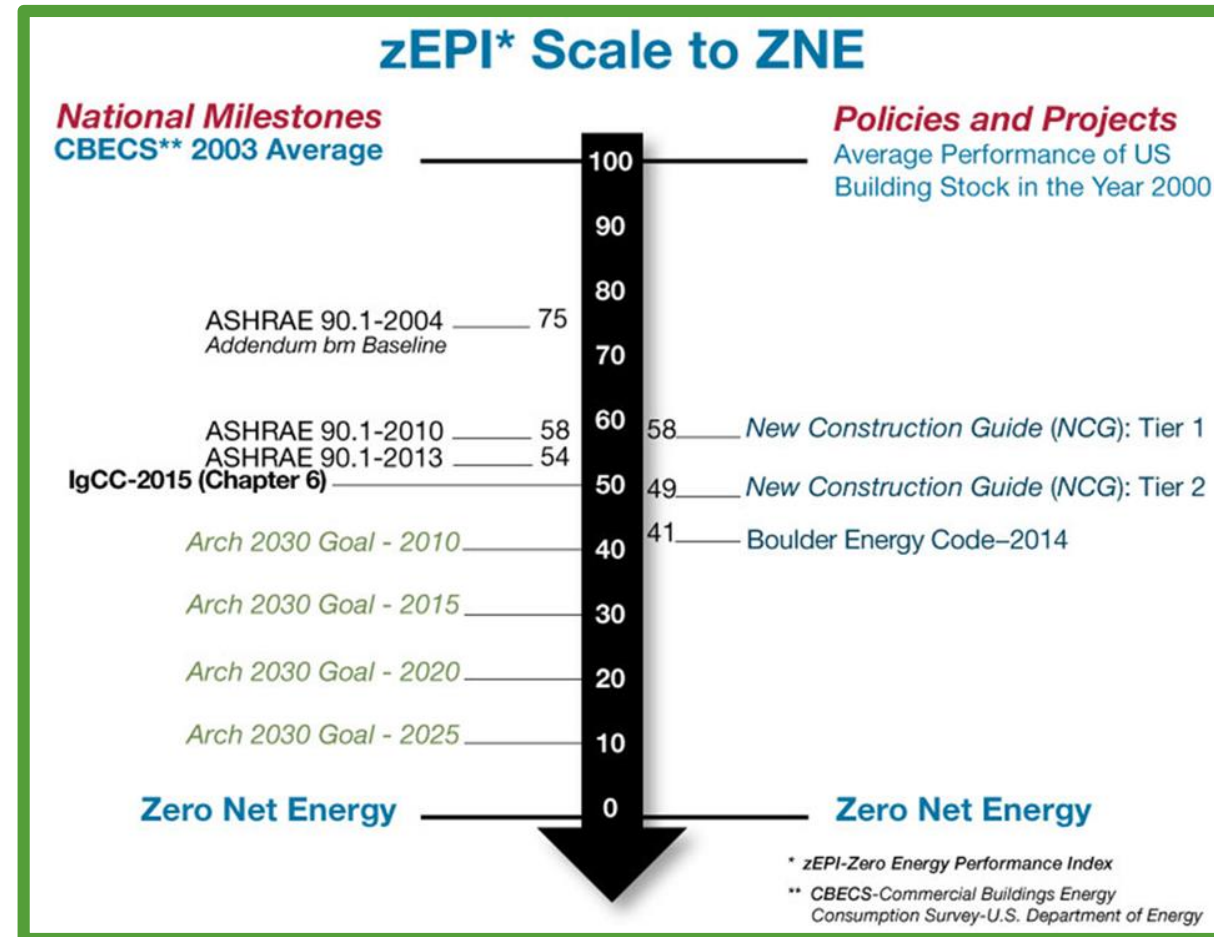


# Establish initial Principles, Metrics, Benchmarks, and Performance targets for the four Key Subsystems

- **Principle:** A fundamental truth that is a basis for action
- **Metric:** how we measure
- **Benchmark:** The standard against which we measure performance
- **Performance Target:** A measurable, quantifiable, and verifiable performance goal established by the team.

## Examples for Energy:

- neutralizing carbon foot print
- metric vs. imperial kbtu/sf-year-GJ/m<sup>2</sup>
- The zero Energy Performance Index
- net-zero, 70% less energy use



# Generate Potential Strategies For Achieving identified Performance Targets

- Brainstorming exercise/ not a commitment
- Look for synergies between LEED credits
- Walking the team through the intentions behind the LEED checklist on a credit-by-credit basis.

LEED 2009 for New Construction and Major Renovations				Project Name
Project Checklist				Date
<b>0 0 0</b>		<b>Sustainable Sites</b>	<b>Possible Points: 26</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1 Construction Activity Pollution Prevention	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1 Site Selection	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 Development Density and Community Connectivity	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3 Brownfield Redevelopment	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.1 Alternative Transportation—Public Transportation Access	6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.2 Alternative Transportation—Bicycle Storage and Changing Rooms	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.3 Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.4 Alternative Transportation—Parking Capacity	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.1 Site Development—Protect or Restore Habitat	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.2 Site Development—Maximize Open Space	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.1 Stormwater Design—Quantity Control	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.2 Stormwater Design—Quality Control	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.1 Heat Island Effect—Non-roof	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.2 Heat Island Effect—Roof	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 8 Light Pollution Reduction	1
<b>0 0 0</b>		<b>Water Efficiency</b>	<b>Possible Points: 10</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1 Water Use Reduction—20% Reduction	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1 Water Efficient Landscaping	2 to 4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 Innovative Wastewater Technologies	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3 Water Use Reduction	2 to 4
<b>0 0 0</b>		<b>Energy and Atmosphere</b>	<b>Possible Points: 35</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1 Fundamental Commissioning of Building Energy Systems	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 2 Minimum Energy Performance	0
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 3 Fundamental Refrigerant Management	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1 Optimize Energy Performance	1 to 19
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 On-Site Renewable Energy	1 to 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3 Enhanced Commissioning	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4 Enhanced Refrigerant Management	2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5 Measurement and Verification	3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6 Green Power	2
<b>0 0 0</b>		<b>Materials and Resources</b>	<b>Possible Points: 14</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1 Storage and Collection of Recyclables	0
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1 Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2 Building Reuse—Maintain 90% of Interior Non-Structural Elements	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 Construction Waste Management	1 to 2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3 Materials Reuse	1 to 2
<b>0 0 0</b>		<b>Materials and Resources, Continued</b>		
<b>Y</b>	<b>?</b>	<b>N</b>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4 Recycled Content	1 to 2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5 Regional Materials	1 to 2
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6 Rapidly Renewable Materials	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7 Certified Wood	1
<b>0 0 0</b>		<b>Indoor Environmental Quality</b>	<b>Possible Points: 15</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 1 Minimum Indoor Air Quality Performance	0
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prereq 2 Environmental Tobacco Smoke (ETS) Control	0
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1 Outdoor Air Delivery Monitoring	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 Increased Ventilation	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.1 Construction IAQ Management Plan—During Construction	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3.2 Construction IAQ Management Plan—Before Occupancy	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.1 Low-Emitting Materials—Adhesives and Sealants	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.2 Low-Emitting Materials—Paints and Coatings	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.3 Low-Emitting Materials—Flooring Systems	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.4 Low-Emitting Materials—Composite Wood and Agrifiber Products	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5 Indoor Chemical and Pollutant Source Control	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.1 Controllability of Systems—Lighting	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.2 Controllability of Systems—Thermal Comfort	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.1 Thermal Comfort—Design	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.2 Thermal Comfort—Verification	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 8.1 Daylight and Views—Daylight	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 8.2 Daylight and Views—Views	1
<b>0 0 0</b>		<b>Innovation and Design Process</b>	<b>Possible Points: 6</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1 Innovation in Design: Specific Title	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2 Innovation in Design: Specific Title	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.3 Innovation in Design: Specific Title	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.4 Innovation in Design: Specific Title	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.5 Innovation in Design: Specific Title	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2 LEED Accredited Professional	1
<b>0 0 0</b>		<b>Regional Priority Credits</b>	<b>Possible Points: 4</b>	
<b>Y</b>	<b>?</b>	<b>N</b>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.1 Regional Priority: Specific Credit	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.2 Regional Priority: Specific Credit	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.3 Regional Priority: Specific Credit	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1.4 Regional Priority: Specific Credit	1
<b>0 0 0</b>		<b>Total</b>	<b>Possible Points: 110</b>	
				<small>Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110</small>



# Workshop No. 1. Tasks and Activities

---

- Determine Order-of-Magnitude cost impact of proposed Strategies
- Provide time for Reflection and Feedback from client and team members
  - Focus groups may help
- Develop an Integrative Process Road map that identifies responsibilities, deliverables, and dates
- Commissioning: Initiate documentation of the Owner's Project Requirements (OPR)
  - OPR questionnaire might be helpful to help guide the owner's thinking about what the building needs to be and how it needs to perform.



# Principles and Measurements

- Document Touchstones, Principles, Metrics, Benchmarks, and Performance Targets from Workshop No. 1
  - Principle based report
  - Include an expanded and annotated LEED checklist (for LEED projects)

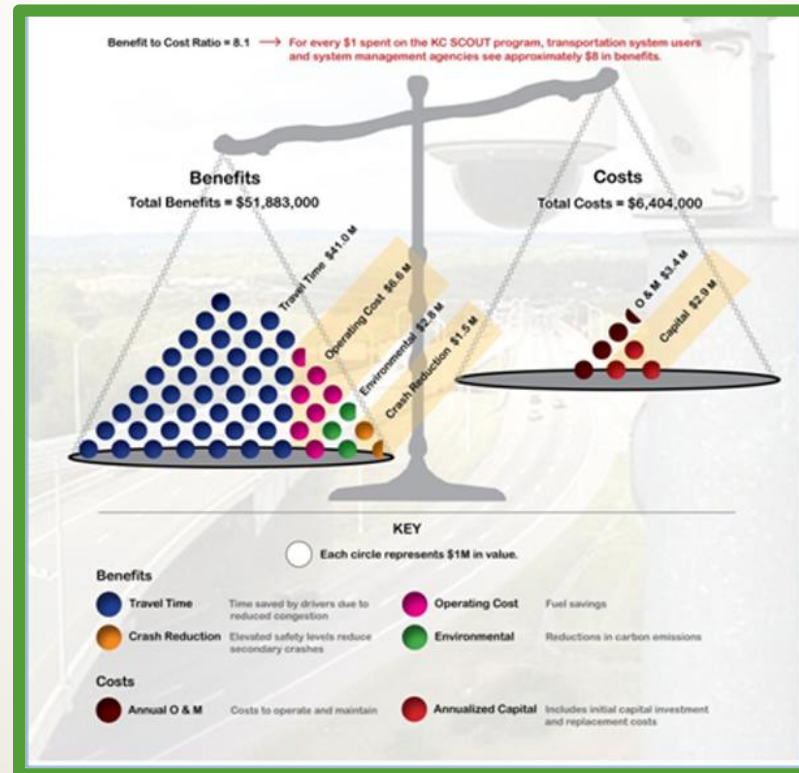
calm traffic, improve crosswalks, and the opportunity for a focal point at the intersection of Town. Public art could be designed and around the intersection as way-finding signs and an information kiosk. A façade extension onto the Star Value building could eliminate unnecessary surface parking spaces now for alfresco dining to penetrate the heart of Town. The activity on the sidewalk at this location would be an ideal opportunity to create "perceptual innuendo" via a new walkway from South Hides. For example, as people walk towards the Star Value building and have a choice to use the new walkway towards Hicks Street or continue on towards Meredith Street. Meredith Street also has potentialities for infill and shared parking. ■



Many opportunities for infill development exist on Hicks and Meredith streets.

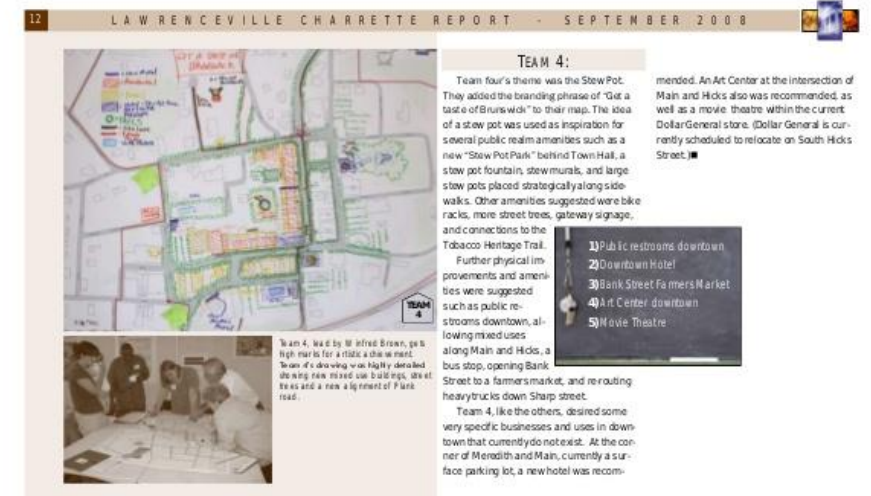
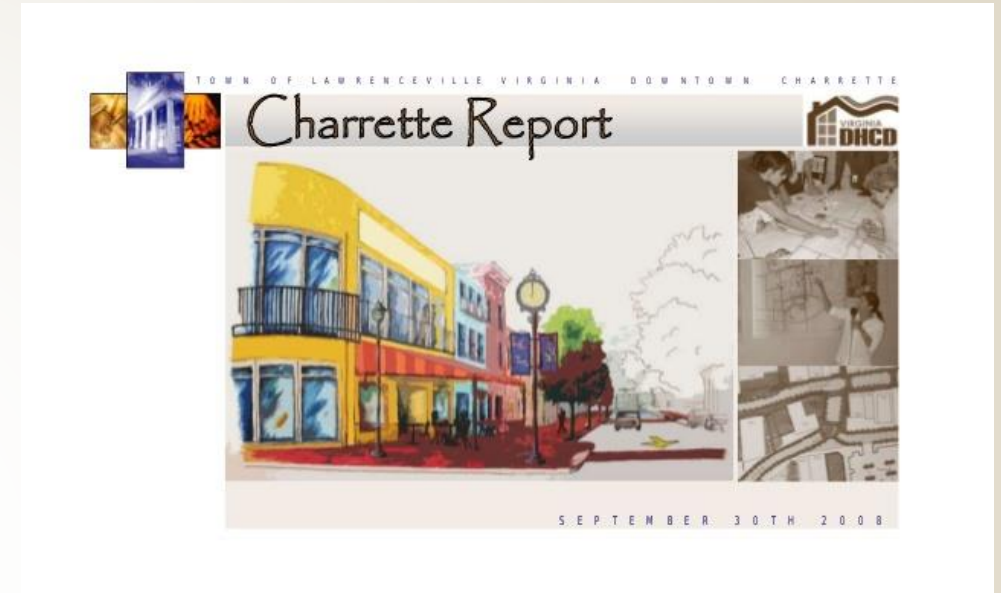
# Cost Analysis

- Document Order of Magnitude cost impacts of the proposed strategies to reflect input from workshop No. 1.



# Schedule and Next Steps

- Adjust Integrative Process Road Map to reflect input from Workshop No. 1.
- Distribute Workshop No. 1 report. The report should contain the following:
  - Meeting agenda
  - Lists of attendees
  - Photos of activities
  - Results from the Touchstones exercise
  - Initial OPR document or date when OPR will be written and by whom
  - Initial Principles, Metrics ,Benchmarks, and Performance Targets (including LEED Scorecard as described above)
  - Cost analysis, including any initial cost-bundling template input
  - Integrative Process Road Map Spreadsheet of Schedule and tasks
  - Bulleted list of next steps



Questions/  
Research to  
Consider for  
writing the  
Reflections:



ESTABLISH INITIAL  
PRINCIPLES,  
METRICS,  
BENCHMARKS, AND  
PERFORMANCE  
TARGETS FOR ANY  
OF THE FOUR KEY  
SUBSYSTEMS IN  
YOUR STUDIO  
PROJECT.



PROPOSE STRATEGIES FOR YOUR  
STUDIO PROJECT AND EXPLAIN HOW  
THESE STRATEGIES WOULD HIT  
SEVERAL ENVIRONMENTAL TARGETS?  
HOW DO THEY IMPACT PROJECT  
COST?

# Preparation Reading for Next Class:

---

Subject:

Evaluation Phase in IDP Process

