This is a major change initiative focused on several key components:

- Design and construction standards management
- Design review process before and after (understanding the gaps)
- Expectations of Design Review Teams (“DRT’s”) and value of DRT’s

Part of this initiative is the result of identified gaps that have occurred in previous years:

- Lack of control for incorporation of Design Standards into projects
- Decisions regarding deviations not vetted by all stakeholders
- Collective ownership of review comments with staff of similar expertise
- Evaluation of deviations with consideration for building life cycle impacts

Issues, perceptions, and wants that are in play and need to be evaluated and addressed are:

- Design Review effectiveness
- A/E and contractor accountability
- Future GW and/or industry changes – need to be flexible and nimble
- Internal project delivery controls
- Accountability and expectation setting for Operations and customers
- On-going advancements in energy management and sustainability
We must achieve “Customer Satisfaction” by calibrating our wants with needs

To achieve this, we, as a team must:
- Design these standards to be flexible, competitive, and provide longevity
- Present options that enable clients to balance their program, facilities, and funding decisions
- Provide absolute transparency on cost and impact to our clients
- Evaluate all Capital Projects via “Life Cycle Analysis” (Concept -> Decommissioning)
- Provide technical need, purpose and cost impact for any item above code

Change in our current approach is non-negotiable but the contents of the change is negotiable

This change is influenced by cost, competitive issues, clients, and ourselves:
- Construction cost and budget management
- On-going changes with operation and maintenance means-and-methods/technologies
- Higher Ed competition
- Industry standard changes and advancements

Understand this may challenge us in many ways, beliefs and past practices, but cost reduction, building efficiency, cost management, cost justification, and/or assurance of deliverables is the goal
Progress To Date

- Revised contract language that “requires” A/E’s and builders to adhere to and incorporate the current Design Standards (as of the date of their contracts) – better enforcement

- Created review teams defined by CSI Divisions (Construction Specification Institute) grouped by disciplines and areas of expertise

- Developed a Design Review structure and process

- Developed a Design Standard deviation and/or waiver review process

- Developing draft “Building Life Cycle Analysis” model to be tested on several new buildings in coordination with Facilities Services

- Design Review Team Kickoff (Today)
Committee Roles

- **Steering Committee:**
  - Oversight for this initiative
  - Final approval of Design Standard deviations/waivers – on a project by project basis (deviations/waivers form is available on FPDR website)

- **DRT Co-Chairpersons:**
  - Identify team resources required (Staff and Other)
  - Team review schedule/s and task assignment/s

- **Design Review Teams:**
  - Provide design review comments by established deadlines using AiM CPPM (as excel attachment)
  - Provide continual review and improvement recommendations to the Design Standards
  - Provide comments and recommendations that advance the university while keeping cost, O&M, and life cycle as determining factors
Committees

- **Steering Committee:**
  - James Schrote (Co-Chair)
  - David Dent (Co-Chair)
  - Meghan Chapple-Brown
  - Alex Weller
  - Harold Speed
  - Art Bean
  - Nancy Giammatteo
  - Adam Aaronson
  - William Flint
  - Stephanie Baldwin (Legal Advisor)

- **Design Review Team Co-Chairpersons:**
  - One Co-Chair from Facilities Planning and Design Review - facilitator
  - One Co-Chair from Committee – assigned on a rotating basis

- **12 Design Review Teams:**
  - Meet 1-2 times monthly (as req’d based on workload)
DRT Assignments

Civil / Streetscape / Historic Preservation / Landscape / Stormwater / Green Roof
- Nancy Giammatteo (FPDR)
- Susi Cora or Eric Selbst (CP)
- Noel Gasparin (FS - Grounds)
- Ronda Chapman-Duer (OS)
- Natalie Addison (FPDR)
- Janine Helwig (FS - EEMO)

Architectural / Interiors / FFE / Room Numbering / Signage / O&M
- Nancy Giammatteo (FPDR)
- Linnea Kessler-Gowell (PA)
- Natalie Addison (FPDR)
- Alex Weller (FS)
- Art Bean (CPM)
- Susi Cora or Eric Selbst (CP)
- Adam Aaronson (DM) (user)
- Tushar Somani (FS)
- Judd Fuoto (PIRC)
- Tony Jabbari (FS)
- Chris Wertzler (FS)

- If this is a residence hall, Kevin Waldron should be included
- If this is an academic/admin building, John Kane should be included
- If there is space for retail venues, Tom Dwyer should be included
- If there is parking, Robert Defendini should be included
DRT Assignments

Loading / Trash / Housekeeping / Green Office

- Natalie Addison (FPDR)
- Alex Weller (FS)
- Jim Schrote (FS)
- India Harrison (FS)
- Tushar Somani (FS)
- Andres Harris (FS)
- Shannon Ross (OS)
- Ronda Chapman-Duer (OS)

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AV / Classroom Technology

- Nancy Giammatteo (FPDR)
- Alex Weller (FS)
- John Arpino (AT)
- Adam Aaronson (DM) (user)
- Natalie Addison
DRT Assignments

GWorld / Security / DIT / Hardware

• Natalie Addison (FPDR)
• Terry Branch (FS)
• Alex Weller (FS)
• Steve Nichols (GWorld)
• Sal Mani (GWorld)
• Andy Davis (DIT)
• Paul Biba (GWPD)
• Kyle Broughan (GWPD)
• Adam Aaronson (DM) (user)
• John Huenneke (FPDR)

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○ If there is space for retail venues, Tom Dwyer should be included
○ If there is parking, Robert Defendini should be included.

Lighting / Energy

• Floyd White (FPDR/PA – Inspector)
• Andy Ludwig (FS - EEMO)
• Natalie Addison (FPDR)
• Nancy Giannetto (FPDR)
• Linnea Kessler-Gowell (PA)
• Alex Weller (FS)
• Mark Ellis (OS)
• Doug Spengel (FS - EEMO)
• Mike Howell (FS - Generator)
• Marcus Jefferson (FS – Inspector)

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○ If there is space for retail venues, Tom Dwyer should be included
○ If this is a historic property, Eric Selbst should be included for exterior lighting
DRT Assignments

Roofing
- Natalie Addison (FPDR)
- Damon Cash (FS - Roofing)
- John Kane (FS)
- Nancy Giammatteo (FPDR)

  - If this is a historic property, Eric Selbst should be included for exposed components

Elevator
- John Huennekens (FPDR)
- Charlie James (FS - Elevator)
- John Kane (FS)
- Marcus Jefferson (FS – Inspector)

Mechanical / Controls / CxA / SCADA
- John Huennekens (FPDR)
- Bob Oakley (FS - Maintenance)
- John Gutierrez (FS - Operations)
- Pete Fletcher (FS – Operations)
- Joe Lenzi (FS – Cx)
- Doug Spengel (FS - EEMO)
- John Twomey (PA - Inspector)
- Mark Ellis (OS)
DRT Assignments

Plumbing

- John Huennekens (FPDR)
- Alex Weller (FS)
- John Twomey (PA – Inspector)
- Ronda Chapman-Duer (OS)
- Andy Ludwig (FS – EEMO)

If this is a residence hall, Kevin Waldron should be included
If this is an academic/admin building, John Kane should be included

Electrical / Life Safety / Fire Alarm / Fire Suppression

- Floyd White (PA – Inspector)
- Mike Howell (FS - Generator)
- Marcus Jefferson (FS – Inspector)
- Gordon Thorne (FS - Life Safety)
- John Huennekens (FPDR)
- John Twomey (PA - Inspector)
- William Flint (Health & Safety)
- Doug Spengel (FS - EEMO)
- Janine Helwig (FS - EEMO)
- Pete Fletcher (FS)

Fuel Storage / Sand Filters

- John Huennekens (FPDR)
- Doug Spengel (FS - EEMO)
- Janine Helwig (FS - EEMO)
As facilitator, FPDR will develop and maintain a schedule of projects and expected A/E submittal dates for review to coordinate work load and Design Review Team’s project review schedules.
Design Review Process – Implementation

- **Design Review Team** members will pre-review documents individually and bring comments and concerns to the larger team review sessions. The first cut should be done individually so that each team member can come to the table with meaningful comments. This will allow a more productive (time efficient) discussion to occur during the review sessions. ‘Vetted’ individual comments will then be incorporated into a final consolidated DRT comment template for issuance to the AE team.

- **Capital Projects** will be reviewed at the following milestones:
  - Programming/Concept
  - SD (architectural plans / MEP Basis of Design – 10%CD)
  - DD (floor plans and elevations; location/size of major utilities and equipment – 30%CD)
  - 75%CD / Permit Set (including controls schematic, sequence of operations, edited specifications)
  - 95%CD / Bid Set
  - 100%CD / Issued for Construction Set
Design Review Process – Implementation

- **Design Review Teams Responsibilities**
  - Attend programming and other project initiation meetings (as required).
  - Review documents (drawings/specs/cut sheets) at milestone submissions to ensure compliance with GW Design Standards and best practices; submit comments to PM/DM for AE review and response.
  - Attend milestone meetings and VE meetings.
  - Attend pre-construction and construction progress meetings (as required).
  - Attend LEED charrette to establish University’s expectations for the project (if applicable).
Design Review Process – ‘Pilot Project’

- **Hall on Virginia Avenue**

  - **Schematic Design** – archive currently available electronically.
  
  - **Design Development** – electronic documents will be issued February 3rd for individual team member review. Comments need to be uploaded to shared drive by February 10th.
  
  - **Design Review Templates** will be issued to team members (and available on the FPDR website) for individual review comments.
  
  - **Design Review Team Meetings** will be scheduled the week of February 10th, with final comments due to AE team on February 17th.
## Design Review Process – Sample Template

### Square 77 Residence Hall

**Schematic Design dated 12/21/12**

**01/18/13**

na/ng = addison/giammatteo; jrh = huennekens; fcw = white

<table>
<thead>
<tr>
<th>No.</th>
<th>Drawing/Reference</th>
<th>Specification</th>
<th>Item</th>
<th>Reviewer</th>
<th>Schematic Design Comment</th>
<th>A/E Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SD Narrative</td>
<td>General</td>
<td>na</td>
<td>na</td>
<td>Project to comply with &quot;FM Global Plan Review and Construction Guidelines for GW&quot;. Plans shall be submitted to FM Global for review and approval prior to starting work.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SD Narrative</td>
<td>General</td>
<td>na</td>
<td>Classroom to comply with GW Design Standards and Classroom Design Specifications (GW Academic Technologies standards).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SD Narrative</td>
<td>General</td>
<td>na</td>
<td>Exterior improvements including hardscape, tree pit fences, and bicycle racks shall comply with The Foggy Bottom Streetscape Plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SD Narrative</td>
<td>General</td>
<td>na</td>
<td>Provide GW standard built-in recycling station in residence hall lobbies. Refer to GW Design Standards for full requirements (Residence Halls - Common Spaces).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Architectural p.3</td>
<td>B2020 Exterior Windows</td>
<td>na</td>
<td>Operable exterior windows must have a limiter device to restrict sash opening to 6 inches. Operation past this point to be by use of a tool or removable key only. 2 keys shall be provided for each floor. Windows readily accessible from outside shall include glass break detectors. Refer to GW CFT Security and Access Standards for requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Architectural p.4</td>
<td>B2030 Main Entrance Doors</td>
<td>na</td>
<td>Ensure all door hardware conforms to GW CFT Security and Access Standards.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>