Decision-Making Process for Green Options in Reroofing

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Presentation Outline

- Public Speaking 101
- Purpose of the Paper
- Seven Factors for Good Roof Design
- Loads on the Roof System
- Summary
Public Speaking 101

- Know your Audience
  - We’re obviously not this crowd.....

- But we’re just as excited...right?
PMA  UL  EPDM  PVC  R-VALUE
HDPE  SRI  KEE
NRCA
RC  GSBUR
SMACNA  TPO  SWRI
Public Speaking 101

- Know your Limits
  - It’s about timing
  - And squeezing it all in
Purposes of the Presentation

- To illustrate the various forms of “green” options for reroofing.
- To demonstrate that good roof design can be broken down to seven fundamentals that we can all apply to our everyday practice.
● Green Roofing is:
  • Vegetative Roofing
  • High Solar Reflectance Index (SRI) Roofing
  • Minimizing Heat-Island Effect
  • Re-roofing or recovery with recycling in-mind
  • Maximizing re-use of materials
  • Less impact on the environment and the public
  • Maximizing Expected Useful Life (EUL)
Decision-Making Process for Green Options in Reroofing

❖ Green roofing?
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Seven Factors in Roof Design

- Slope – get the water to the drains
- Drainage – get the water off the roof
- Attachment – hold the roof down
- Durability – material properties
- Constructability – how we build it
- Maintenance – how we make it last
- Sustainability – the “green” factor
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Seven Factors in Roof Design

- Sustainability – the “green” factor
Loads on the Roof System

- Pre-Construction
  - Manufacturing
  - Storage
  - Shipping
  - Delivery
- Construction
  - Insulation Installation
  - Construction Traffic
  - Wind Uplift
  - UV Radiation
- Service Loads
  - Heat Transfer
  - Vapor Drive
  - Leak Migration
  - Live Load
  - Dead Load
- Roof Traffic
- Reroofing Loads
  - Ballast Removal
  - Membrane Removal
  - Reroofing
**Summary**

- Slope of ¼ per foot to direct water to drains
- Drainage and overflow protection per code, ++
- Attachment appropriate and proven for each deck type
- Durability as appropriate to use, access, and life-cycle cost
- Constructability that fits each roof
- Maintenance of the membrane can be difficult if the membrane is protected.
- Sustainability is meeting or exceeding the expected useful service life...among other factors.