

Integrated Design Narrative

Lead Design Firm/Architectural Design Firm: Done Right Architectural, Inc.

Landscape Architect Design Firm: Greenup, Inc.

Civil Design Firm: Flowdown Engineers, Inc.

Structural Design Firm: Upright and Sons Engineering, Inc.

Mechanical Design Firm: Keepemcool Mechancial, Inc.

Electrical Design Firm: Sparksalot Engineers, Inc.

Commissioning Authority: Checkemout Commisioners, Inc.

Construction Manager: Lookemover, Inc.

Other Design Firms: N/A

Opportunities for Integration:

- Building orientation: Building siting:
- Local manufacturer of Polyisocyanurate stressskin panels can qualify for local materials.
- Integrate roof with PV requirements by using standing seam and integral panels.
- Deciduous trees planting on south side to improve energy performance of building.

Tradeoffs discussed and made:

- Building was oriented with its long access east-west. This required a longer driveway and some re-grading on the east side but will result in better energy performance and more comfortable workspaces.
- Building site was moved 20 yards to the west to permit better daylighting opportunities out of the shadow of the neighboring hill. This also allows the construction of a bioswale on the east side.
- Roof design load will be adjusted to accommodate a thermosiphon type solar water heater.
- Continuous insulation will be placed around the outside of the stud walls rather than just insulating between studs.
- Light colored roof will be explored in concert with lowering the roof pitch.
- Aspect ratio of building will be modified to ensure all occupied spaces have access to outside views.

Energy Analysis Results:

- Submit energy analyses (using software that incorporates DOE-2 load estimation code) for at least three prospective options of the constructed project. Options may include variations in:
 - Building aspect ratio
 - Building siting
 - Building orientation
 - Mechanical systems
 - Envelope design (Insulation, fenestration, shading, etc)

Base Case Annual Energy and Water Utilization:

- Establish a code compliant base case mathematical model for the project. Provide enough information in the model to estimate annual energy and water usage. This will be used for comparison to show compliance with standards requiring improvement over a base design.