



**Char Residence Photovoltaic Canopy & Landscaping**  
*Denver, Colorado*  
**2008**

3840 York Street, Suite 216  
Denver, Colorado 80205  
303.296.6200

## Char Residence PV Canopy & Landscaping *Green Remodel & Renewable Energy Design Denver Colorado*

UNiT design studio was hired by Steve Char to design a photovoltaic system for his home. Instead of a cumbersome PV array mounted on the ground, we decided to integrate the system into a heavy-timber canopy. This integration provided two solutions for two separate problems, all with one design concept. Integrating the PV system not only kept the backyard space open, but it also provided shade for the new patio and landscaping at the same time. We performed detailed analysis through a digital model to determine the appropriate location for the canopy. This analysis minimized potential shadow effects, caused by surrounding trees, which could have greatly reduced the efficiency and energy generated by the 4.2 kW system.

We also worked with Steve to design a koi pond and bridge into the patio space, which he would later embellish with plants and fish, to provide added detail and personality. The pond and bridge were accented with detail lighting activated at dusk by a photocell. Other work performed consisted of relocating all overhead power lines into underground conduit, pouring a new driveway and pad behind the garage, and various other details.



# UNIT



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