Architecture for Low Vision
Site, Building and Interior Design
Presented at the National Institute
of Building Sciences
Low Vision Design Committee
Symposium January 10, 2013
By Stuart L. Knoop, FAIA
Sponsored with generous support from:
Post-Occupancy Evaluations of U.S. Courthouse Led to Low-Vision Issues Awareness

U.S. Courthouse, Eugene, OR
Glare from Daylight
Glare from Lighting
Design for Disabilities Background:

- 1968 - Congress passed the Architectural Barriers Act (ABA) (P.L. 90-480)
- 1984 - several federal agencies (HEW, DOD, HUD, USPO) published Uniform Federal Accessibility Standard (UFAS)
- 1990s - Congress passed the Americans with Disabilities Act (P.L. 101-336) and the U.S. Access Board published Accessibility Guidelines
Daylighting in Buildings

Benefits

• Illumination
• Thermal
• Energy savings
• Connection to exterior
• Spatial impact
• Inspiration
• Beauty

The Pantheon, Rome
Daylighting in Buildings

Potential Challenges

• Uncontrolled glare
• Lack of transitions can be overpowering
• Uncontrolled heat gain
• Reflections
• Location, location, location
• No light at all
Interior Design – Glare
Interior Design – Monochromatic and Low Contrast
Site, Street, Surroundings

U.S. Courthouse Little Rock, AK
Street Furniture

U.S. Courthouse Denver, CO,
Transitional Space from Exterior to Interior

U.S. Courthouse, Eugene, OR
High Contrast and Glare in Lighting

U.S. Courthouse, Eugene, OR
Absence of Visual Clues – Stair Nosing Edges are Poorly Defined
Interior Design
Transition from Elevator to Atrium

U.S. Courthouse, Little Rock, AK
Interior Design
Low Contrast
Interior Design
Poor Cutoff from Lighting Fixtures
Interior Design
Glare in Reflective Finishes

Old Post Office – Little Rock, AK
Controlling Lighting and Glare - Modern
Controlling Lighting and Glare - Historic
Conclusion

The NIBS *Design Guideline for Health and Safety in the Visual Environment* will begin to fill a current void in universal design by making buildings more accessible to the growing low-vision population.