Incorporating Life Cycle Knowledge into the Design Process of Large-Scale Resorts
Overview

• The Walt Disney Company and the Environment
• Product Scale and Complexity
• Challenges to Integrating Life Cycle Knowledge
• Strategic Approach to Sustainable Design
Disney and the Environment

• History of encouraging environmental awareness and responsibility

• Focus on targeted environmental work in specific locations
Corporate Goals - 2008

- Net-zero direct GHG emissions
- Reduce indirect GHG emissions
- Zero waste to landfill
- Net positive impact on ecosystems

- Minimize water use
- Minimize product footprint
- Inform, empower, and activate positive action for the environment
Product Scale

- 11 theme parks covering over 125 km²
- 34,000+ hotel rooms
- 90,000+ cast members
- 3 cruise ships
Product Complexity
# Project Integration

## Creative
- Dimensional design
- Concept designers
- Show designers
- Show producers
- Show writers
- Concept architects

## Design
- Production design
- Show set design
- Specialty design
- Show lighting
- Special effects
- Projection design
- Media design
- Audio/Video eng
- Sound processing

## Facilities
- A&E mng
- Architects
- Interior designers
- Graphic designers
- Landscape architects
- Facility eng
- Civil eng
- Structural eng
- Electrical eng
- Rockwork eng

## Show/Ride
- Mechanical eng
- Electronic eng
- Software eng
- Technical docs
- Projection eng
- System eng

## Production
- Mechanical
- Production
- Electrical techs
- Plastics techs
- Show production
- Show animation
- Show mechanical eng
Project Integration

Relative Number of Full Time Equivalents

Creative | Design | Facilities | Show/Ride | Production

Blue Sky | Concept/Feasibility | Schematic/Design Development | Contracts/Documentation | Construction/Production | Installation/Test & Adjust | Opening Day/Close-out

Note: Does not include Project Management, Finance, Human Resources, Operations and Maintenance
Assessment Scope and Level of Detail

• Delivering meaningful results at specific stages of design

• Directional information early in design process yields ideal design solutions
Sustainable Design Solutions Framework

- LEED, ASHRAE
- Best Sustainable Practices
- Brainstorm Sessions and Charrettes
- Operations Experience and Standards
- Other Standards and Guidelines

Sustainable Design Opportunities

Initial Filtering
- Creative Viability
- Operational Viability
- Technical Feasibility

Preliminary Assessment
- Screening LCA / LCC

Detailed LCM Study

Implement Solution

SDS Master Database

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Strategic Direction

- Improve usability of the sustainable design solutions evaluation tool

- Enable designers to quickly estimate the environmental impacts of various designs
Thank You!

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