Envision Framework and Rating System

ENVISION

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Outline

1 Introducing Envision

2 Two key ways to think about Envision

3 Become an Envision Sustainability Professional (ENV SP)

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ENVISION

- Like LEED® but for civil infrastructure instead of buildings
- Holistic framework for planning, evaluating, and rating the **community**, **environmental**, and **economic** benefits of infrastructure
- Purpose is to foster a **necessary shift in performance** across all dimensions of sustainability
- Developed in joint collaboration between Harvard Graduate School of Design and Institute for Sustainable Infrastructure
- Launched in 2012

Applicable to all types & sizes of infrastructure projects

ENERGY

WATER

WASTE

TRANSPORT

LANDSCAPE

INFORMATION

Envision® Addresses the ***public*** side of infrastructure

- Broader concern for long term and community impacts
- Reflects the fact that no single entity is typically responsible for infrastructure – collaboration is key
- Infrastructure largely publicly funded – must respond to public and taxpayer needs

Two ways to think about Envision®

PRIMARY

Framework and Design Tool

- Think comprehensively
- Stimulate "out-of-the box" solutions

Improved Design

SECONDARY

Certification Platform

- Document achievements
- Demonstrate accomplishments

Certification Award

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ENV SP: Facilitator of the Envision process

ID key project priorities & map to Envision credits

- Identify sustainability goals and objectives for the project
- Identify community & stakeholder priorities/concerns/expectations

Use Envision to inform more sustainable design

- Use Envision to stimulate TBL thinking
- Identify sustainable options/solutions that might be otherwise overlooked
- "Basket" of sustainable options to choose from

Assessment of options

- Conduct technical, financial, environmental analyses // ID pros/cons

Document decisions made, rationale

- Documentation
- Record strategies pursued / decisions made

The credits at a glance

Quality of Life
13 credits

1 Purpose
QL 1.1 Improve Community Quality of Life
QL 1.2 Simulate Sustainable Growth & Development
QL 1.3 Develop Local Skills + Capabilities

2 Wellbeing
QL 2.1 Enhance Public Health + Safety
QL 2.2 Minimize Noise and Vibration
QL 2.3 Minimize Light Pollution
QL 2.4 Improve Community Mobility + Access
QL 2.5 Encourage Alterative Modes of Transport
QL 2.6 Improve Accessibility, Safety + Wayfinding

3 Community
QL 3.1 Preserve Historic + Cultural Resources
QL 3.2 Preserve Views + Local Character
QL 3.3 Enhance Public Space

QL0.0 Innovate or Exceed Credit Requirements

Leadership
10 credits

1 Collaboration
LD 1.1 Provide Effective Leadership + Commitment
LD 1.2 Establish a Sustainability Management System
LD 1.3 Foster Collaboration + Teamwork
LD 1.4 Provide for Stakeholder Involvement

2 Management
LD 2.1 Pursue By-Product Synergy Opportunities
LD 2.2 Improve Infrastructure Integration

3 Planning
LD 3.1 Plan for Long-Term Monitoring + Maintenance
LD 3.2 Address Conflicting regulations + Policy
LD 3.3 Extend Useful Life

LD 0.0 Innovate or Exceed Credit Requirements

Resource Allocation
14 credits

1 Materials
RA 1.1 Reduce Net Embodied Energy
RA 1.2 Support Sustainable Procurement Practices
RA 1.3 Use Recycled Materials
RA 1.4 Use Regional Materials
RA 1.5 Divert Waste from Landfills
RA 1.6 Reduce Excavated Materials Taken Off Site
RA 1.7 Provide for Deconstruction + Recycling

2 Energy
RA 2.1 Reduce Energy Consumption
RA 2.2 Use Renewable Energy
RA 2.3 Commission + Monitor Energy Systems

3 Water
RA 3.1 Protect Fresh Water Availability
RA 3.2 Reduce Potable Water Consumption
RA 3.3 Monitor Water Systems

RA 0.0 Innovate or Exceed Credit Requirements

Natural World
15 credits

1 Siting
NW 1.1 Preserve Prime Habitat
NW 1.2 Protect Wetlands + Surface Water
NW 1.3 Preserve Prime Farmland
NW 1.4 Avoid Adverse Geology
NW 1.5 Preserve Floodplain Functions
NW 1.6 Avoid Unsuitable Development on Steep Slopes
NW 1.7 Preserve Greenfields

2 Land + Water
NW 2.1 Manage Stormwater
NW 2.2 Reduce Pesticide + Fertilizer Impacts
NW 2.3 Prevent Surface + Groundwater Contamination

3 Biodiversity
NW 3.1 Preserve Species Biodiversity
NW 3.2 Control Invasive Species
NW 3.3 Restore Disturbed Soils
NW 3.4 Maintain Wetland + Surface Water Functions

NW 0.0 Innovate or Exceed Credit Requirements

Climate + Risk
8 credits

1 Emissions
CR 1.1 Reduce Greenhouse Gas Emissions
CR 1.2 Reduce Air Pollutant Emissions

2 Resilience
CR 2.1 Assess Climate Threat
CR 2.2 Avoid Traps + Vulnerabilities
CR 2.3 Prepare For Long-Term Adaptability
CR 2.4 Prepare for Short-Term Hazards
CR2.5 Manage Heat Island Effects

NW 0.0 Innovate or Exceed Credit Requirements

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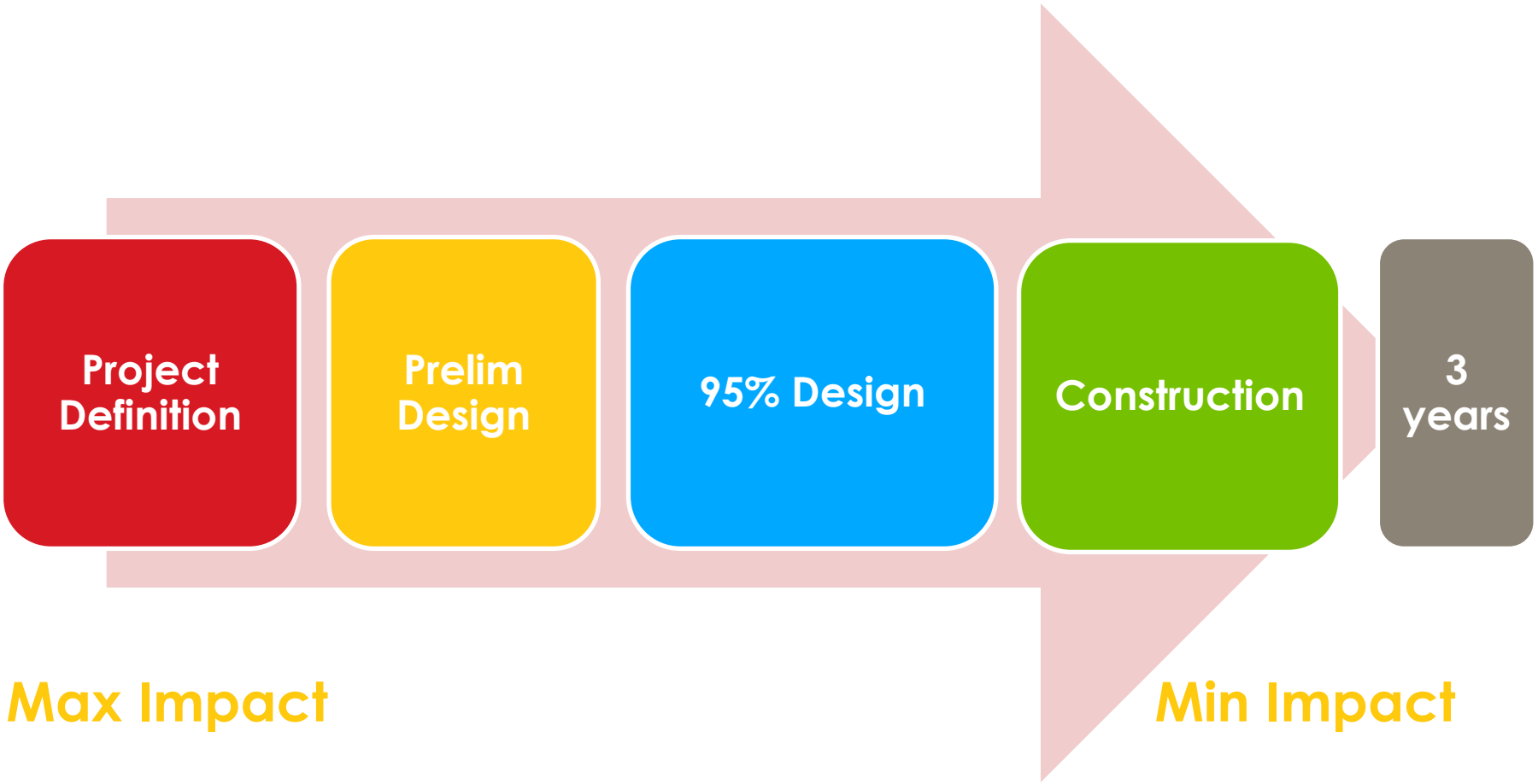
When to use Envision®



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Summary

Envision® is uniquely qualified to address infrastructure challenges:

- Provides a **consistent and robust framework** for comparing/contrasting qualitative or 'soft' benefits and impacts of infrastructure
- Tool for **strengthening cooperation** among disciplines, stakeholders
- **Improves infrastructure integration**
- Rapidly **becoming the de facto standard** for integrated and sustainable infrastructure in North America

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ENV SPs

ENV SP = Envision Sustainability Professional

- An ENV SP is someone **trained and accredited** in the use of the Envision framework and rating system.
- ENV SP designation **denotes understanding** of the system
- ENV SPs are **integral to the project team**
- ENV SPs help **facilitate the Envision process**, help project teams **address TBL dimensions across the full life-cycle of a project**
- Join a **growing network** of sustainability professionals across North America

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