#### Memorandum



DATE September 5, 2017

Honorable Members of the Mobility Solutions, Infrastructure and Sustainability Committee: Lee M. Kleinman (Chair), Rickey D. Callahan (Vice-Chair), Sandy Greyson, Adam Medrano, Casey Thomas, II and Tennell Atkins

#### SUBJECT Getting to Know the Envision® Rating System

On Monday, September 11, 2017, you will be briefed on Getting to Know the Envision® Rating System. The briefing materials are attached for your review.

Please feel free to contact me if you have any questions or concerns.

Jó M. (Jody) Puckett

Assistant City Manager (Interim)

[Attachment]

Honorable Mayor and Members of the City Council
T.C. Broadnax, City Manager
Larry Casto, City Attorney
Craig D. Kinton, City Auditor
Billerae Johnson, City Secretary (Interim)
Daniel F. Solis, Administrative Judge
Kimberly Bizor Tolbert, Chief of Staff to the City Manager
Maied A. Al-Ghafry, Assistant City Manager

Jon Fortune, Assistant City Manager
Joey Zapata, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Nadia Chandler Hardy, Chief of Community Services
Raquel Favela, Chief of Economic Development & Neighborhood Services
Theresa O'Donnell, Chief of Resilience
Directors and Assistant Directors





# Getting to Know the Envision® Rating System

SEPTEMBER 11, 2017

MAJED AL-GHAFRY
ASSISTANT CITY MANAGER
TODD BUCKINGHAM
PROJECT MANAGER, FNI



- LEED
  - Focused on Human-Occupied Buildings
  - Focused on Architecture Elements
- Envision<sup>®</sup> Rating System
  - Variety of Civil Infrastructure <u>NOT</u> Buildings







- Civil Infrastructure Rating Systems
  - Typically Rating Systems Per Sector (Buildings, Roadways, Site Development)
- Envision<sup>®</sup> Rating System
  - Flexible, Broad to Span Multiple Infrastructure Sectors



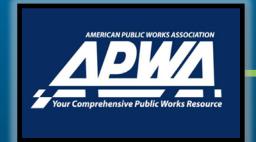














### History and Organization:



2010







### Project Types:

- ☐ Roadways
- ☐ Bridges
- Pipelines
- ☐ Railways
- Airports
- ☐ Pump Stations

- Dams
- Levees
- ☐ Landfills
- ☐ Parks
- ☐ Treatment Plants
- ☐ Hike and Bike Trails









### Purpose:

To foster improvements in **ECONOMIC**, **SOCIAL**, and **ENVIRONMENTAL** aspects of projects









LEADERSHIP

10 Credits











Addresses a project's impact on surrounding communities, from the health and wellbeing of individuals to the wellbeing of the larger social fabric as a

whole.

□ PURPOSE
□ COMMUNITY
□ WELLBEING







Addresses the project team's involvement of a wide variety of people in creating ideas for the project, and understanding the long-term, holistic view of the project and its life cycle.

- ☐ COLLABORATION
- MANAGEMENT
- ☐ PLANNING







Addresses the concerns with the quantity, source, and characteristics of the project's resources and their impacts on the overall sustainability of the project.

☐ MATERIALS
☐ ENERGY
☐ WATER







Addresses how to understand and minimize the project's negative impacts while considering ways in which the infrastructure can interact with natural systems in a synergistic, positive way.

- ☐ SITING
- ☐ LAND + WATER
- **□** BIODIVERSITY







Addresses minimizing a project's emissions that may contribute to increased short and long-term risks and ensuring that infrastructure projects are resilient to short-term hazards or altered long-term future conditions.

- **□** EMISSION
- ☐ RESILIENCE





- 5 Major Credit Categories
- 14 Credit Subcategories
- 60 Individual Credits (5 Innovation Credits)





#### **LEADERSHIP**

In Credite







#### 1 PURPOSE

QL1.1 Improve Community Quality of Life

QL1.2 Stimulate Sustainable Growth & Development

QL1.3 Develop Local Skills & Capabilities

#### 2 WELLBEING

QL2.1 Enhance Public Health & Safety

QL2.2 Minimize Noise and Vibration

QL2.3 Minimize Light Pollution

QL2.4 Improve Community Mobility & Access

QL2.5 Encourage Alternative Modes of Transportation

QL2.6 Improve Accessibility, Safety, & Wayfinding

#### 3 COMMUNITY

QL3.1 Preserve Historic & Cultural Resources

QL3.2 Preserve Views & Local Character

#### 1 COLLABORATION

LD1.1 Provide Effective Leadership & Commitment

LD1.2 Establish A Sustainability Management System

LD1.3 Foster Collaboration & Teamwork

LD1.4 Provide for Stakeholder Involvement

#### 2 MANAGEMENT

LD2.1 Pursue By-Product Synergy Opportunities

LD2.2 Improve Infrastructure Integration

#### 3 PLANNING

LD3.1 Plan For Long-Term Monitoring & Maintenance

LD3.2 Address Conflicting Regulations & Policies

LD3.3 Extend Useful Life

LD0.0 Innovate or Exceed Credit Requirements

#### 1 MATERIALS

RA1.1 Reduce Net Embodied Energy

RA1.2 Support Sustainable Procurement Practices

RA1.3 Use Recycled Materials

RA1.4 Use Regional Materials

RA1.5 Divert Waste From Landfills

RA1.6 Reduce Excavated Materials Taken Off Site

RA1.7 Provide For Deconstruction & Recycling

#### 2 ENERGY

RA2.1 Reduce Energy Consumption

RA2.2 Use Renewable Energy

RA2.3 Commission & Monitor Energy Systems

#### 3 WATER

RA3.1 Protect Fresh Water Availability

#### 1 SITING

NW1.1 Preserve Prime Habitat

NW1.2 Protect Wetlands & Surface Water

NW1.3 Preserve Prime Farmland

NW1.4 Avoid Adverse Geology

NW1.5 Preserve Floodplain Functions

NW1.6 Avoid Unsuitable Development on Steep Slopes

NW1.7 Preserve Greenfields

#### 2 LAND+WATER

NW2.1 Manage Stormwater

NW2.2 Reduce Pesticide & Fertilizer Impacts

NW2.3 Prevent Surface & Groundwater Contamination

#### 3 BIODIVERSITY

NW3.1 Preserve Species Biodiversity

#### 1 EMISSIONS

CR1.1 Reduce Greenhouse Gas Emissions

CR1.2 Reduce Air Pollutant Emissions

#### 2 RESILIENCE

CR2.1 Assess Climate Threat

CR2.2 Avoid Traps & Vulnerabilities

CR2.3 Prepare For Long-Term Adaptability

CR2.4 Prepare For Short-Term Hazards

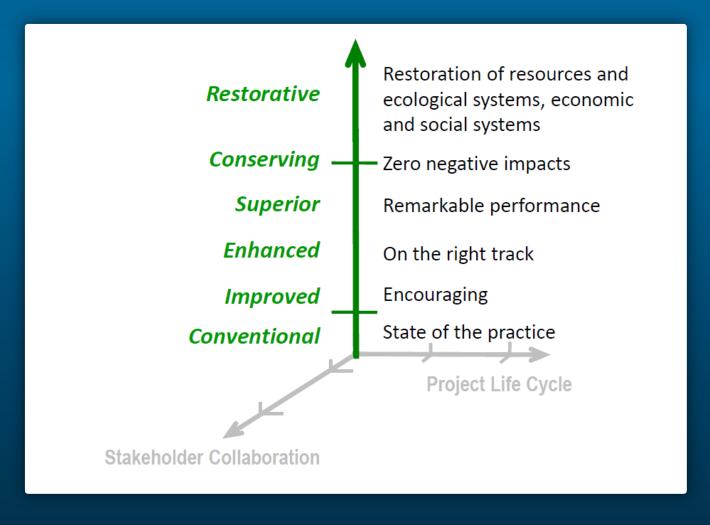
CR2.5 Manage Heat Island Effects

CR0.0 Innovate or Exceed Credit Requirements

### Envision® Rating System



### Envision<sup>®</sup> Levels of Achievement:





### Credentialing

- In-Person or Online Training
- Envision<sup>®</sup> Sustainability Professional
- Ability to Submit for Project Verification

### **Project Verification and Award**

Verification Cost Based on Project Size

Note: System Can Be Used Without Verification



### Credentialing: April 25, 2017

37 City of Dallas Employees

Trained by Freese and Nichols, Inc.









### International Use

- 6,200+ Credentialed Professionals
- 39 Project Awards
- More Than \$32.5 Billion of Infrastructure





### Next Steps

- Continue to Train Project Managers
- Implement in Project Development Process





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