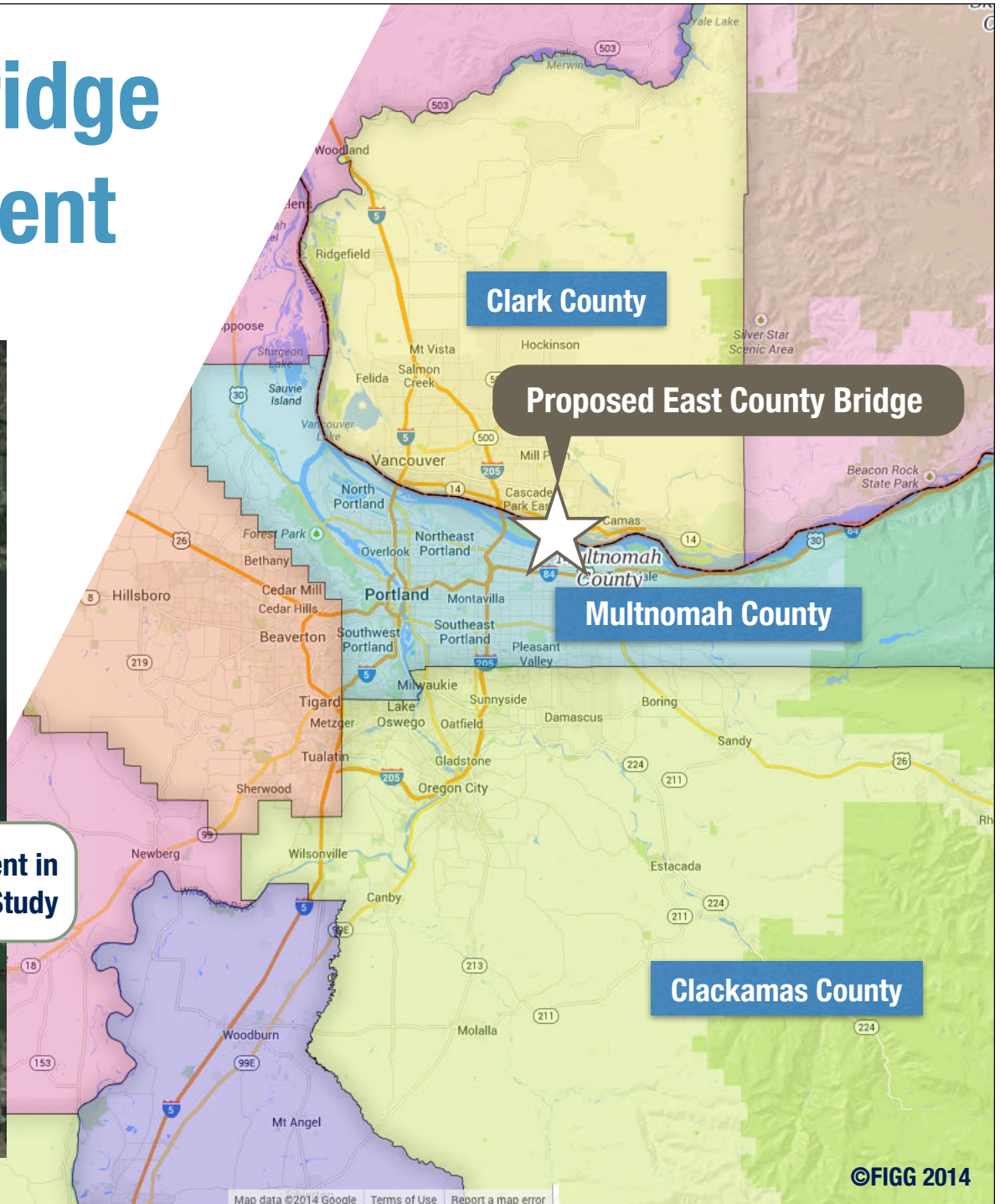
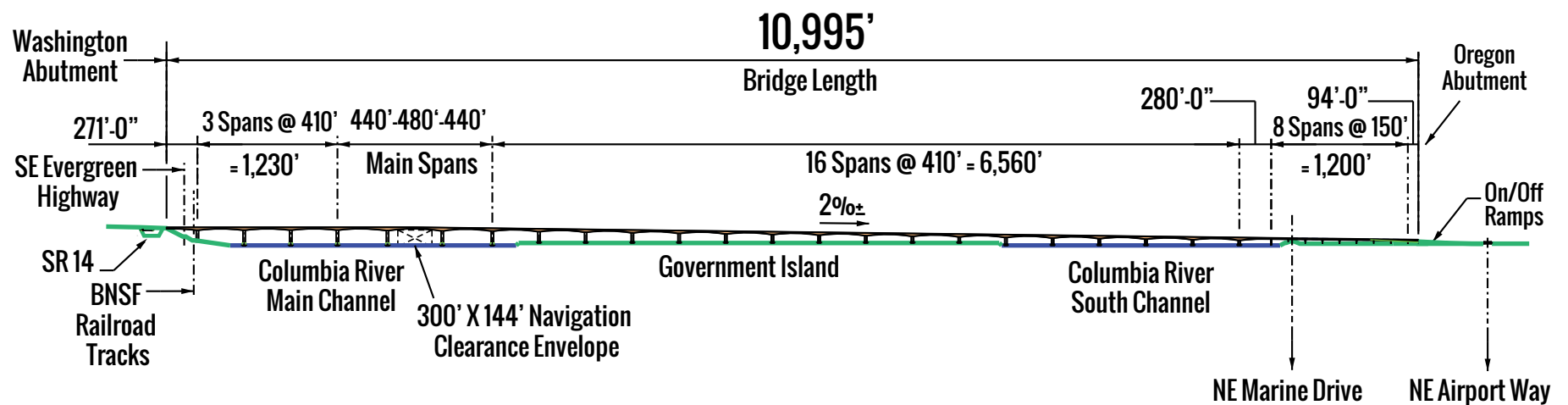


East County Bridge Project Alignment



Overall Bridge Elevation



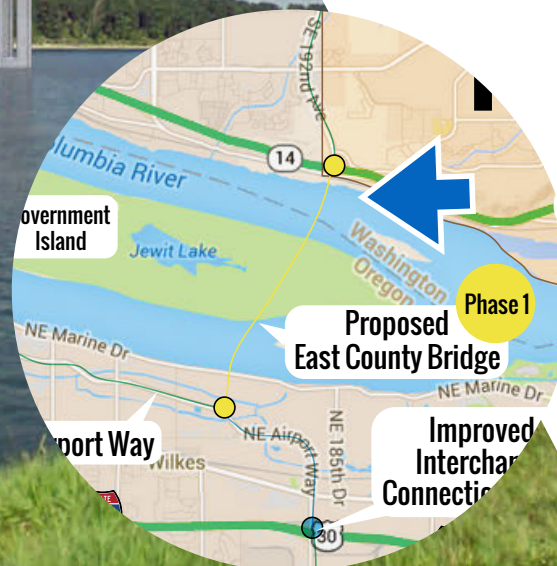
Overall Bridge Layout



Starting at 192nd/SR-14 Washington side bluff allows easy crossing of navigation channel with gentle bridge grade.

2% grades are good for trucks and multi-use pathways for pedestrians and bicycles

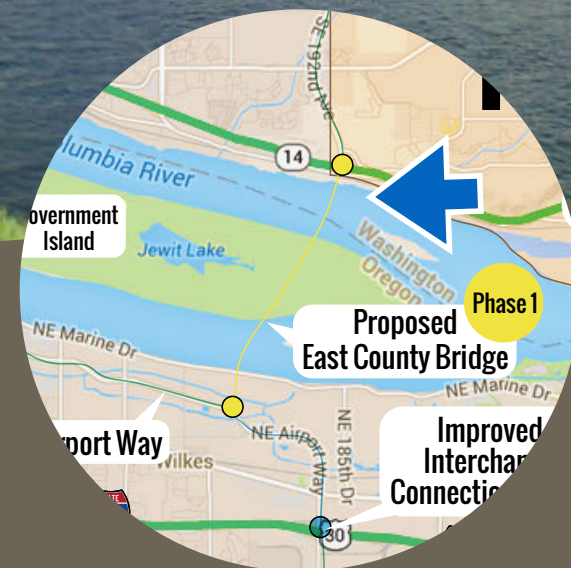
Bridge meets all airport clearances





East End Bridge Rendering

480' span over navigational channel provides 300' horizontal and 144' vertical clearance for vessels. The same as I-205



©FIGG 2014



East End Bridge Rendering

Spans of 410' create openness and maximize navigation and preserves the environment



©FIGG 2014



East End Bridge Rendering

Bridge is elevated over Government Island to preserve the environment with the least footprint

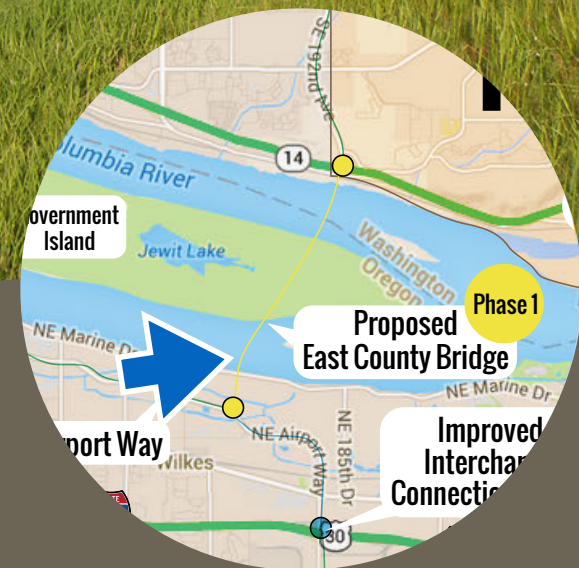


©FIGG 2014

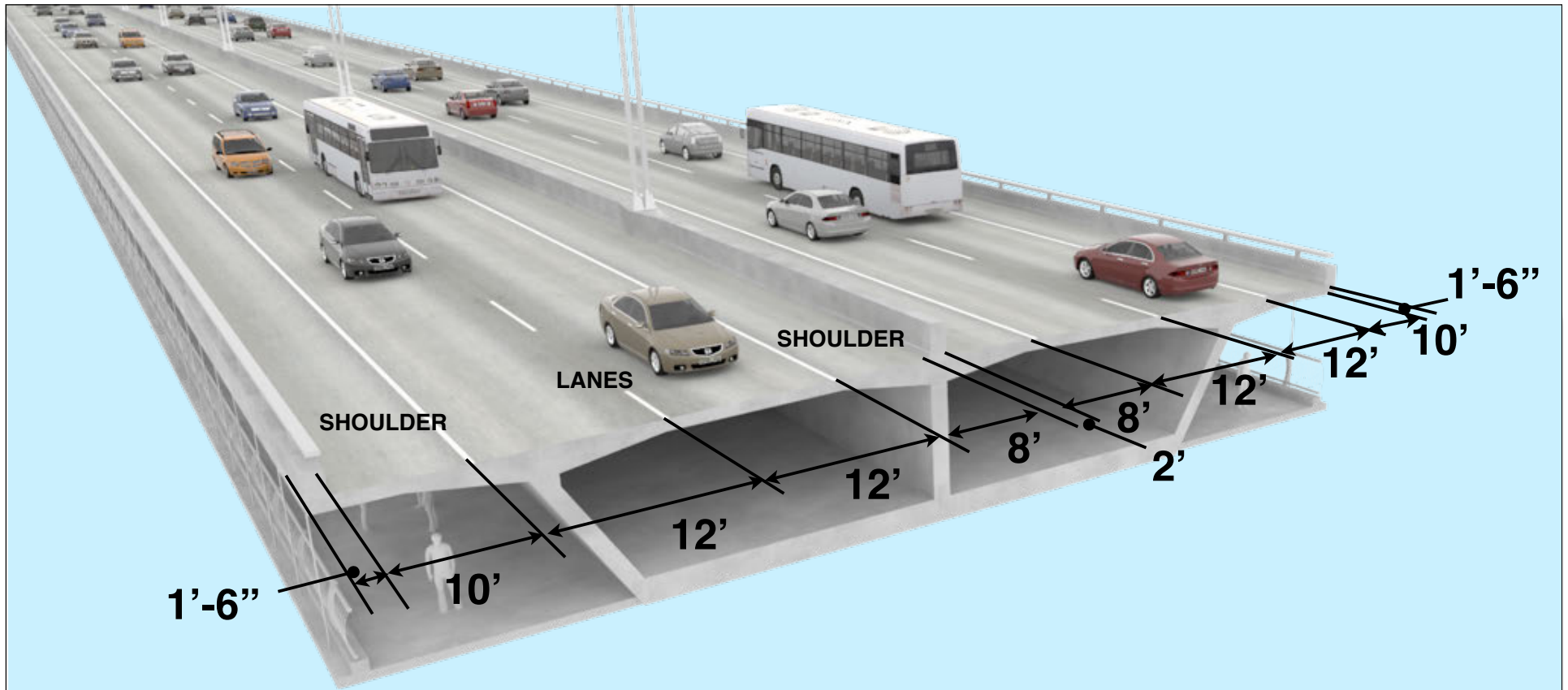


East End Bridge Rendering

**Alignment is away from homes.
Convenient connection to commercial areas**



©FIGG 2014

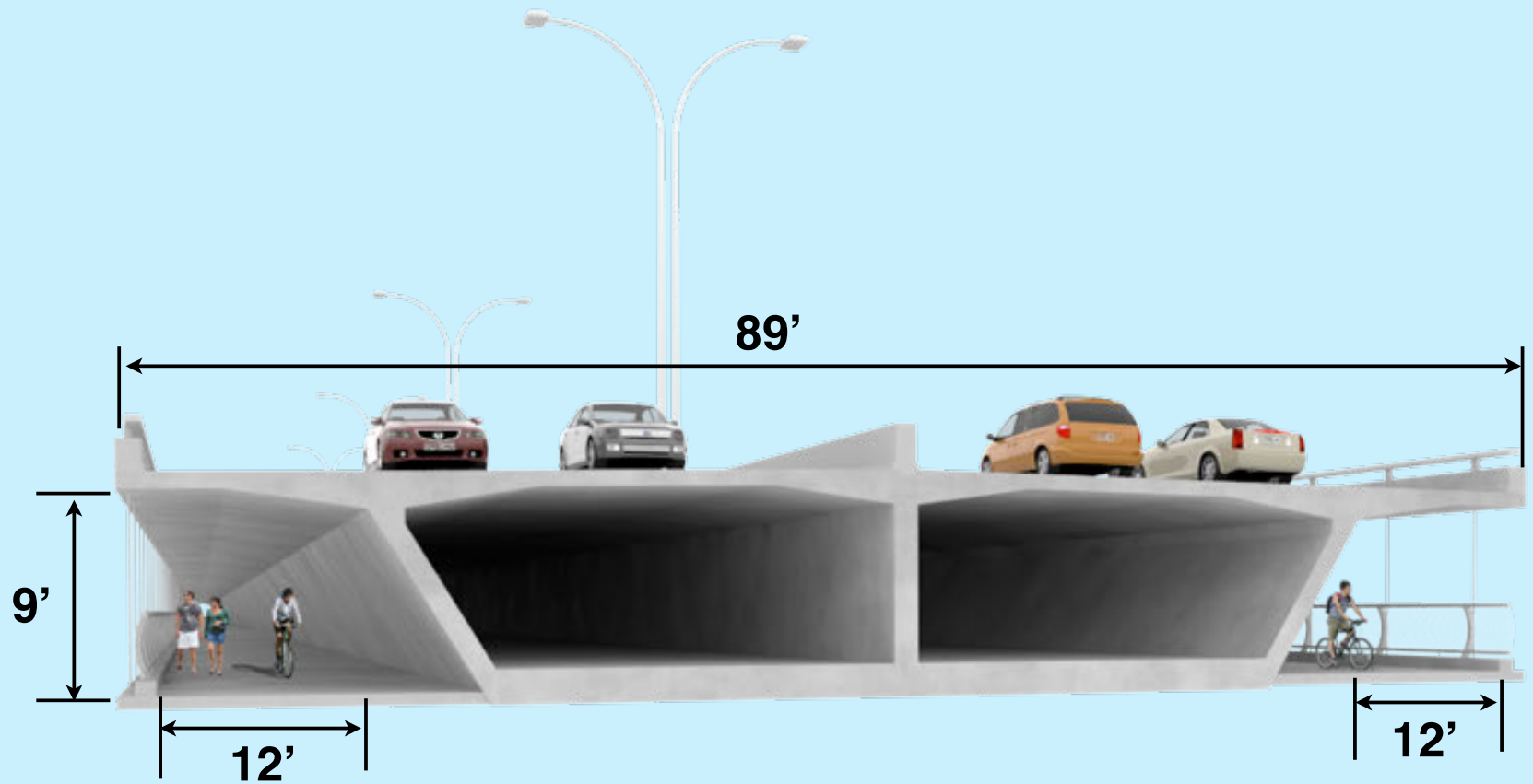


Bridge Configuration

Each direction - NB and SB provides:
2 - 12' lanes with
10' outside & 8' inside shoulders

Provides for cars, trucks, buses,
pedestrians and bicycles

©FIGG 2014



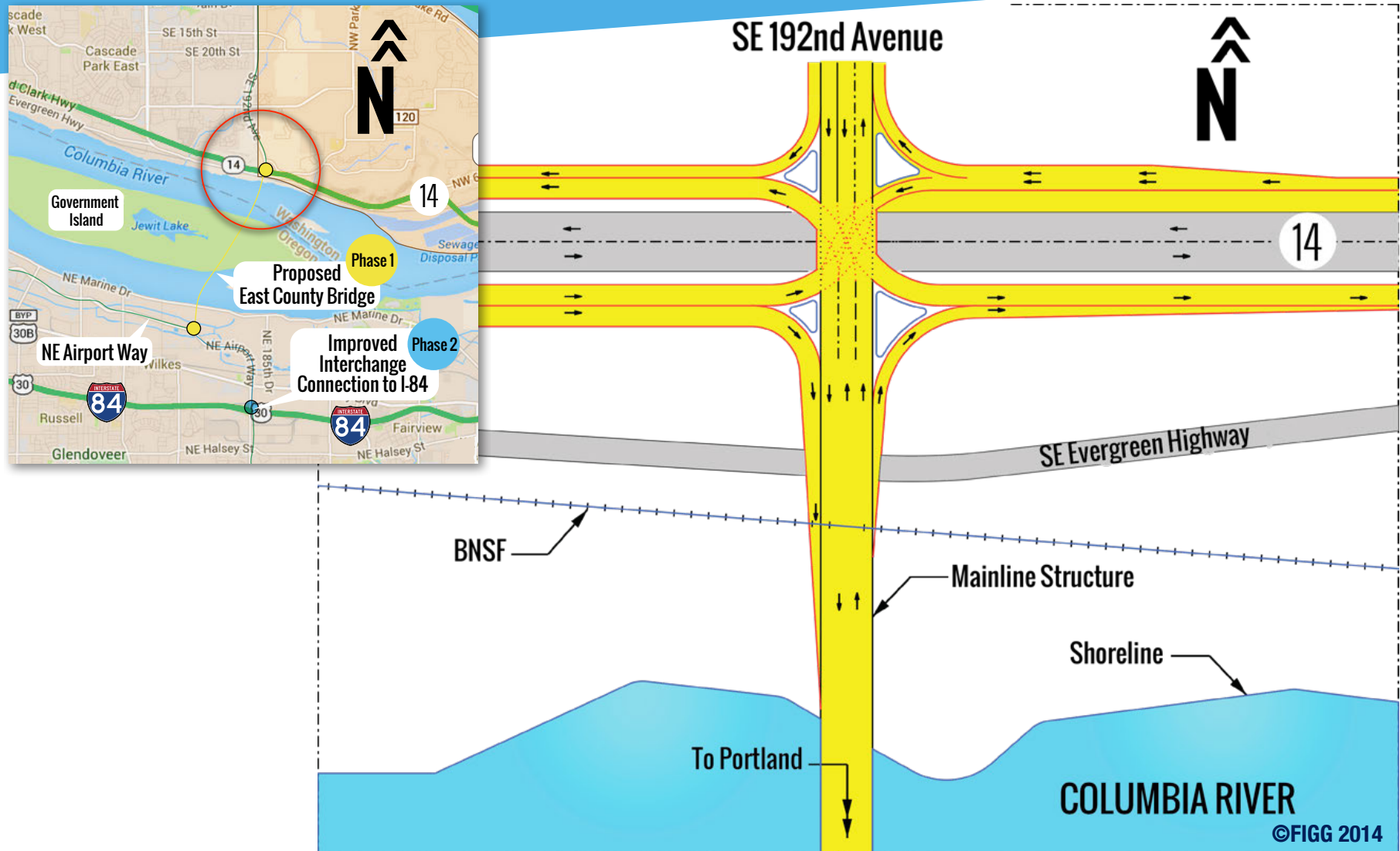
Bridge Configuration

Two 12' multi-use protected pathways for pedestrians and bicycles

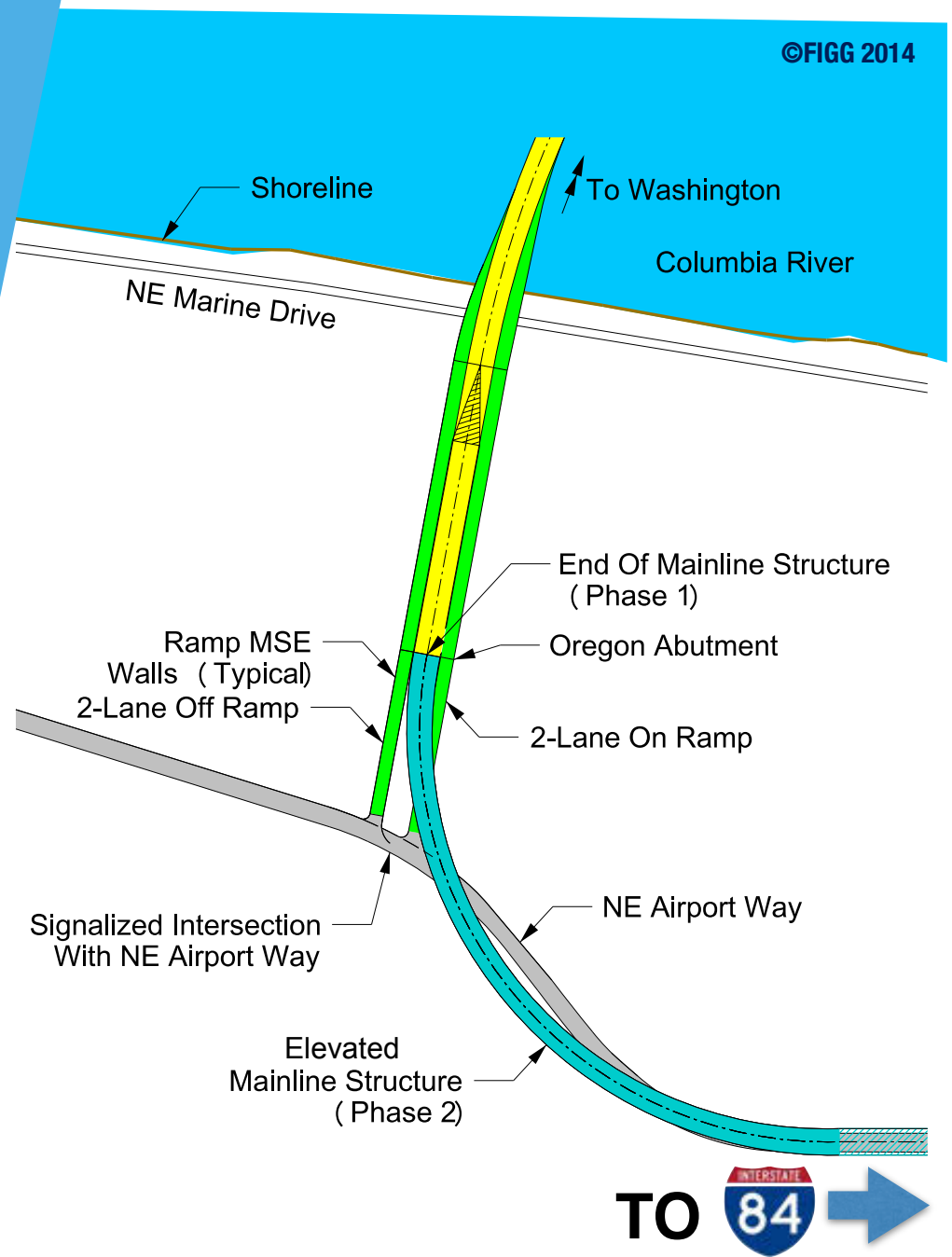
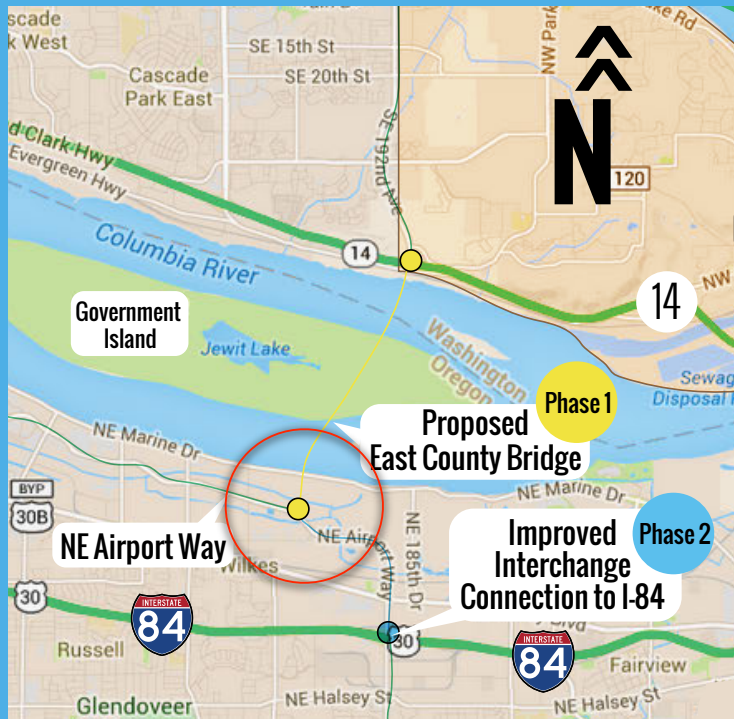
Scenic views of the Columbia River

©FIGG 2014

Single Point Urban Interchange (SPUI)



South End Interchange Configuration



Creating Sustainable Bridges as Art for Your Communities

East County Bridge



the People

©FIGG 2014

1st Five Bridges Glenwood Canyon

Glenwood Springs, Colorado

the Places



©FIGG 2014

Natchez Trace Parkway Arches

Tennessee



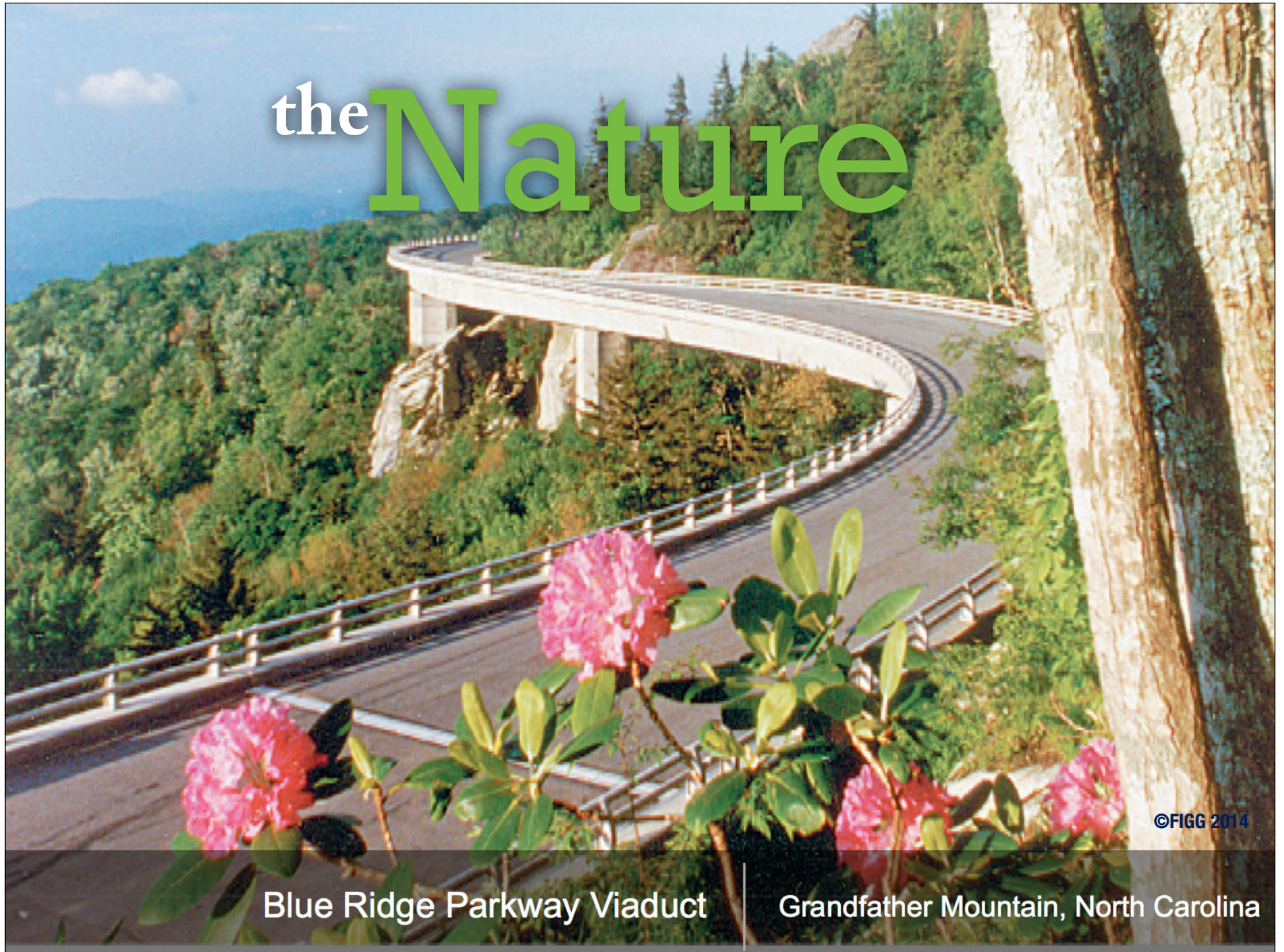
the Events

©FIGG 2014

Veteran's Glass City Skyway

Toledo, Ohio

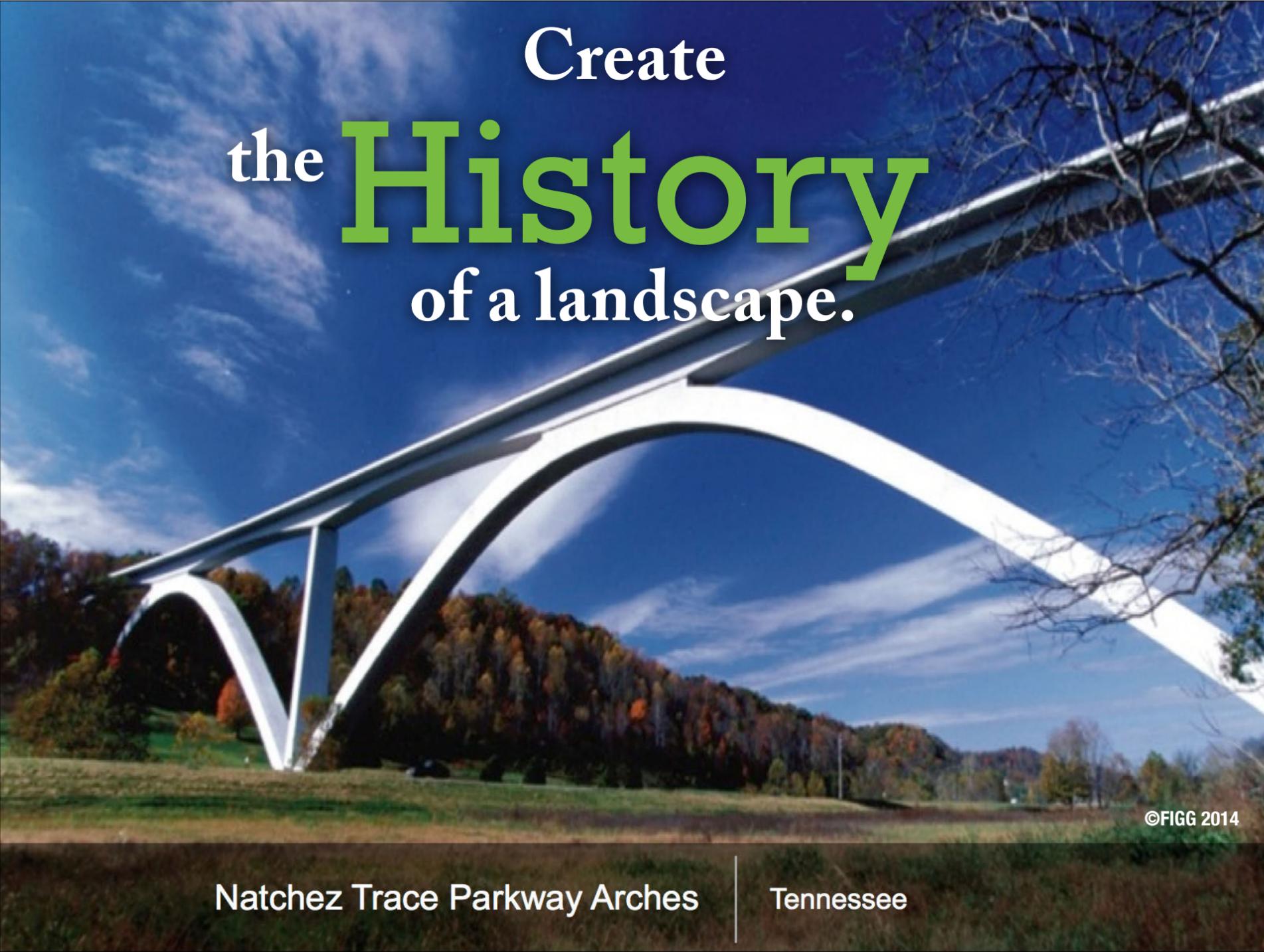
the Nature



©FIGG 2014

Blue Ridge Parkway Viaduct

Grandfather Mountain, North Carolina



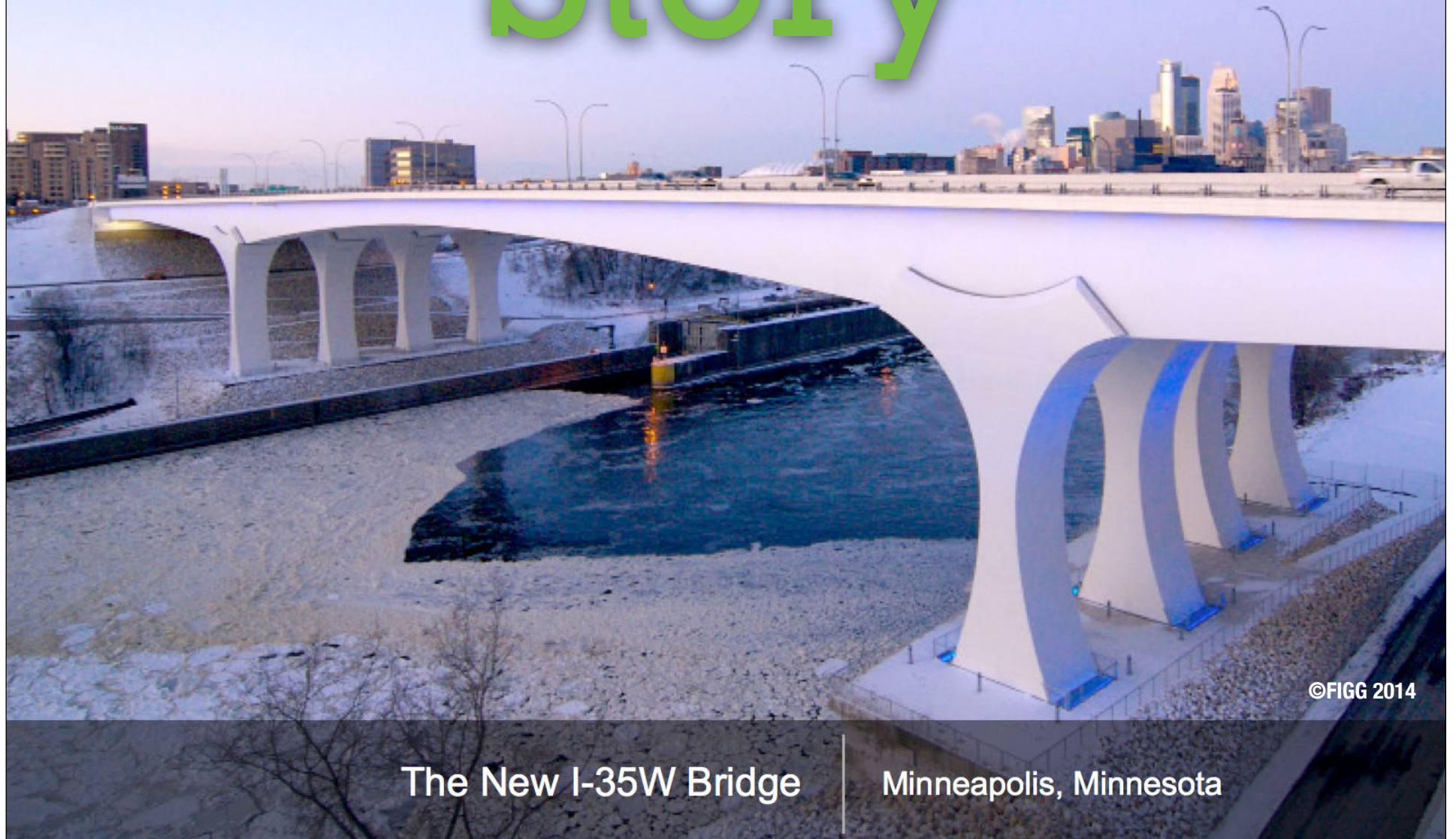
Create
the **History**
of a landscape.

©FIGG 2014

Natchez Trace Parkway Arches

Tennessee

the Story



©FIGG 2014

The New I-35W Bridge

Minneapolis, Minnesota

Every bridge shares that story.
It begins with

a **Vision**

©FIGG 2014

I - 275 Sunshine Skyway Bridge

I - 275 Sunshine Skyway Bridge

Tampa Bay, Florida



Community Vision

©FIGG 2014

Signature Design



©FIGG 2014

Functional Sculpture

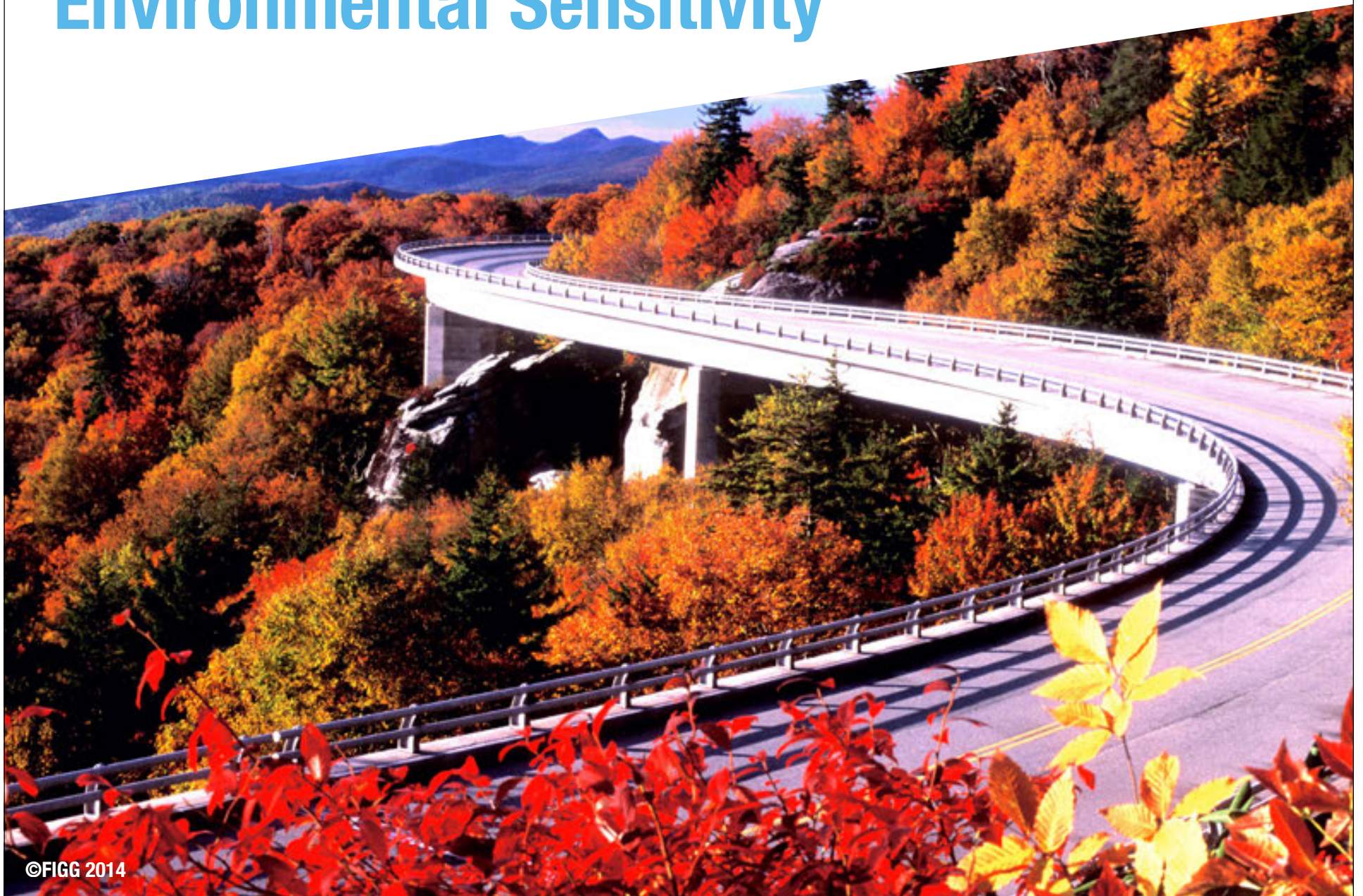
©FIGG 2014



Constructibility

©FIGG 2014

Environmental Sensitivity



©FIGG 2014



Harmony with Environment

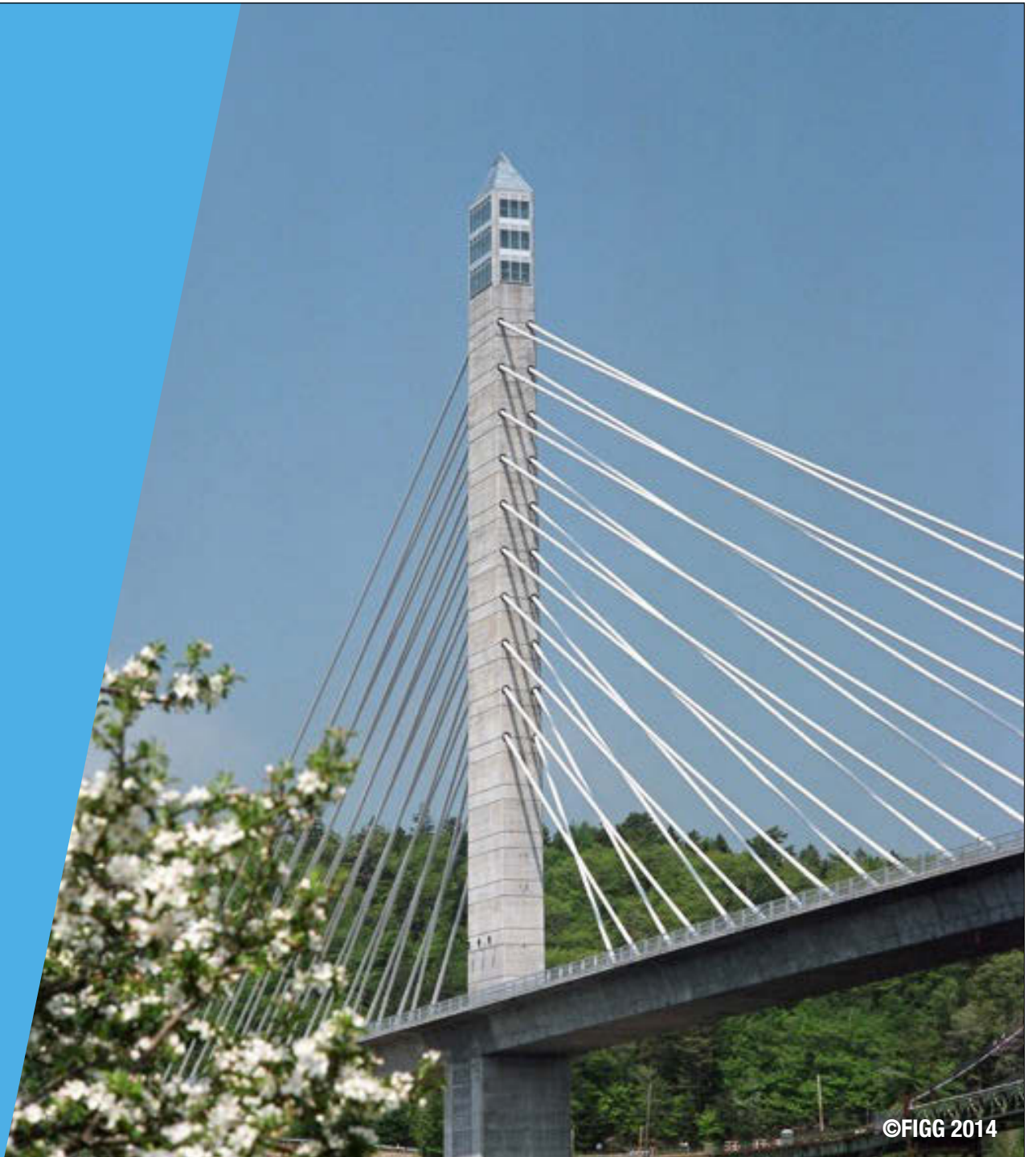
©FIGG 2014

Context Sensitive Design



©FIGG 2014

Technical Innovation



©FIGG 2014

Spirit of People



©FIGG 2014

Timeless



©FIGG 2014

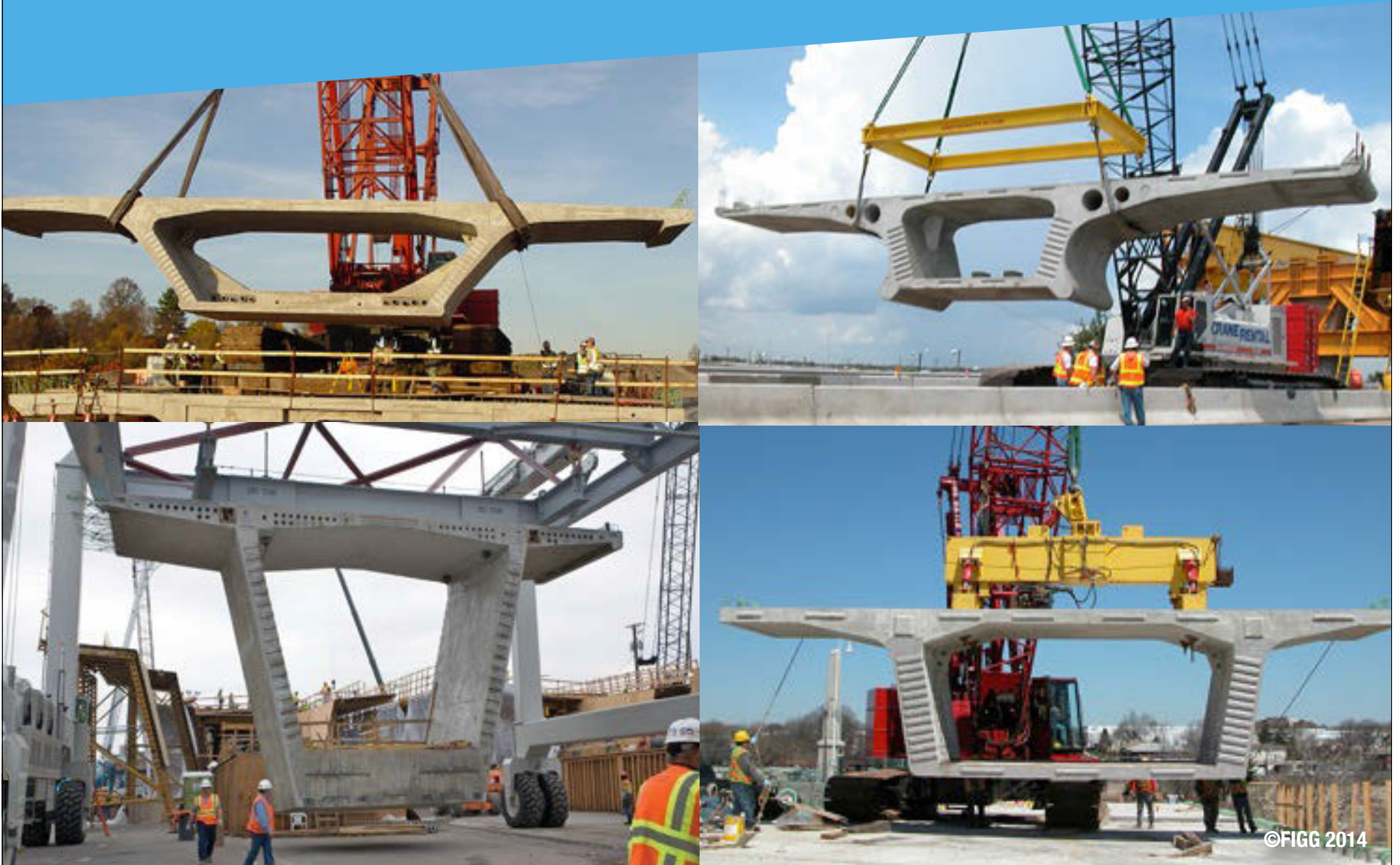
Sustainability Is The Capacity To Endure

Context Sensitive Solutions (CSS)



Concrete Segmental Bridges are a Sustainable Solution

Precast factory-like quality and quick to assemble



ENVIRONMENTAL

Protect air, water and land

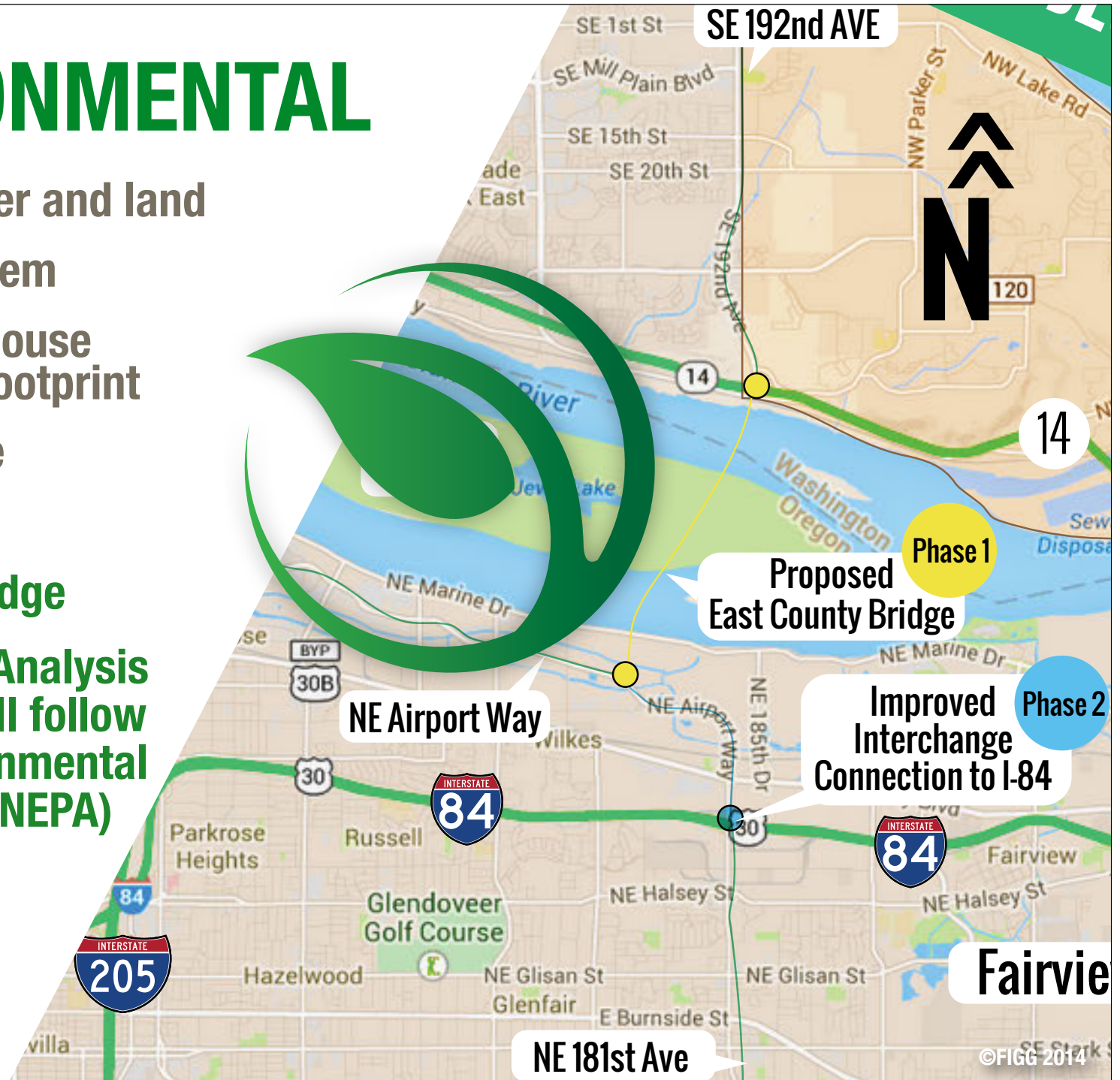
Protect ecosystem

Reduce green house
gases/carbon footprint

Low energy use

East County Bridge

Environmental Analysis
& Document will follow
National Environmental
Protection Act (NEPA)



New I-35W Bridge - Minneapolis, Minnesota

Sustainable Design

High quality materials built to last

Sand



Water



Cement



Gravel



©FIGG 2014

Environmentally Friendly Concrete

Created better concrete durability
through lower permeability

Fly ash (waste product from coal)
replaces some cement for lower
permeability

Saved 3.5 tons of
CO₂ per truckload



I-35W Bridge - Minneapolis, MN Concrete Design and Construction



Local Materials + Local Labor = Energy Efficiency



©FIGG 2014

Low Energy Low Maintenance LED Lighting

First used on New I-35W Bridge ➤

Highway lighting with beautiful white light

Multi use path lighting for pedestrians and bicyclists

Multiple color options for aesthetic lighting

15-20 year life
(vs. 4 year life for yellow
high pressure sodium bulbs)



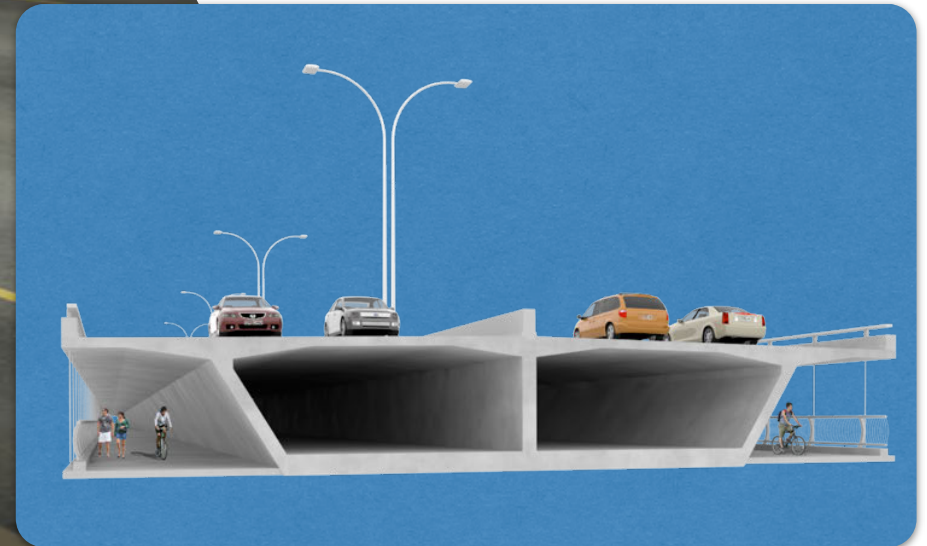
©FIGG 2014

Innovative LED Barrier Lights Is An Option

First used on FIGG bridge in Colorado

FHWA approved

Option to eliminate light poles



SOCIAL

Context Sensitive Solutions
Involve Community
Better Quality of Life
Safer
Better Land Use



©FIGG 2014

Applying FIGG Archetypal Design Principles to Achieve Holistic Design

Establish a Theme

Blend Shapes

Create Shadows

Select Appropriate Textures

Choose Pleasing Colors

Open New Vistas

Use Native Materials

Create Feature Lighting

Incorporate Landscaping



Community Theme: Timeless Ecology



**FIGG Bridge Design Charettes™
Community Involvement to Select
World Class Bridge Aesthetics**

**Design Charettes will be held with
community to select bridge features**

©FIGG 2014

FIGG Bridge Design Charettes will be held with community to select bridge aesthetic features

Items such as:

Bridge Theme

Pier shapes

Bridge Treatments

Railings

Lighting

Landscaping



©FIGG 2014

Creating Functional Bridge Sculpture Means Examining Pier Shapes that are Context Sensitive to a Communities Sense of Place



US280 Birmingham, AL



Wekiva River for NPS



Dresbach Bridge, MN



4th Street Pueblo, CO



SR 204 Savannah, GA



I-91 Brattleboro, VT

Example Theme of Nature inspired by Washington and Oregon Trees



©FIGG 2014

Example Theme of Nature inspired by Washington and Oregon Trees



Ponderosa Pine



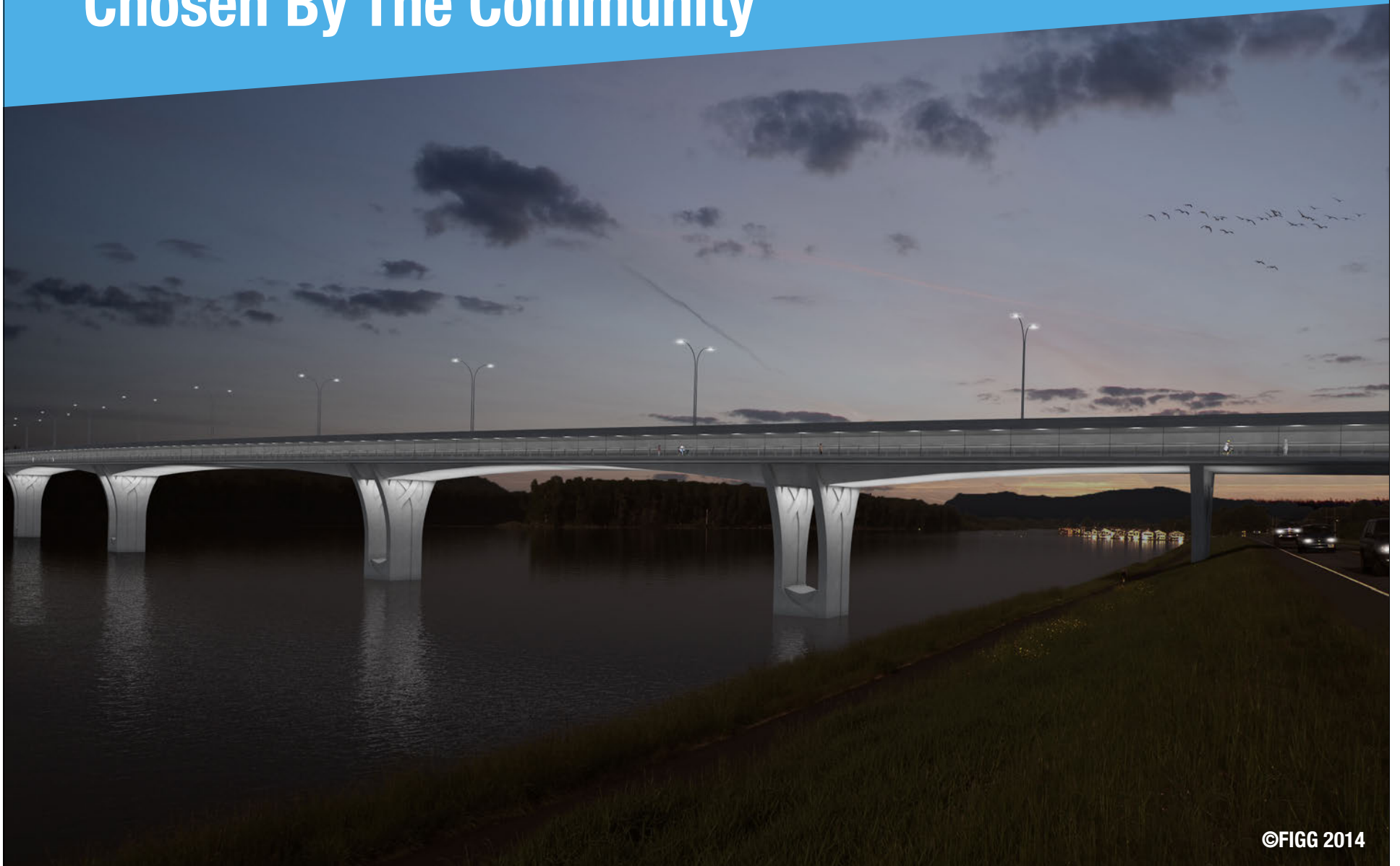
Sitka Spruce



Quaking Aspen



East County Bridge Aesthetic Lighting To Be Chosen By The Community



©FIGG 2014

LED Lighting Provides Opportunity for Thematic Color Features



©FIGG 2014

Involving the Community Builds Excitement, Trust and Ownership

Website and Live Construction Cam



Sidewalk Community Talks



Newsletters



Sign the Bridge



Education for Kids



Bridge Box for Teachers



Educational Outreach

Teachers Bridge Box Basics Kit
for the classroom customized
for East County Bridge
FIGG developed with National
Building Museum in
Washington D.C.



Example: I-35W Bridge, Minnesota

Approach to Community Involvement

Design Charettes

To select bridge aesthetics
with community

Open Houses

To share designs with
community

Educational Outreach

To involve local schools
and universities in building
the bridge



ECONOMICAL

Cost and Time Savings
Local Economic Benefits
Resource Efficiency
Life Cycle Cost Benefits



©FIGG 2014

Long variable depth spans and compact sections with twin wall piers create efficiency and economy

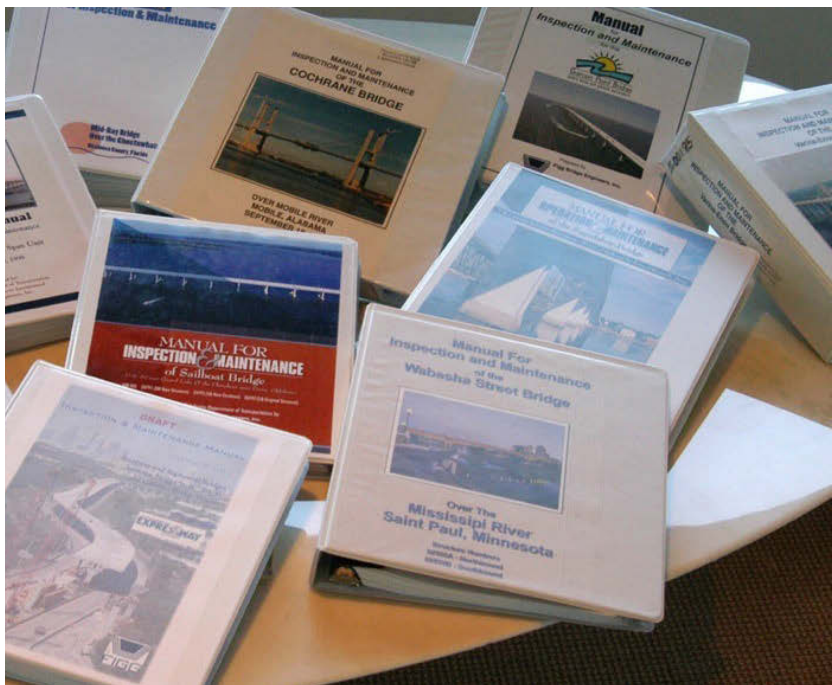


©FIGG 2014

Low Maintenance / Long Term Durability Concrete Bridge Features

**Owners Manual for Care of East County Bridge
Ease of Inspection & Maintenance**

**Inspection Workshop and Joint First Inspection
with the Bridge Owner**



**We Know “Low Maintenance”
FIGG Bridge Managers is Maintenance Operator**



©FIGG 2014

East County Bridge Project Schedule

Open in 5 years from Notice to Proceed

	2 Years		3 Years		
	Environmental, permitting, right-of-way, pre-construction engineering		Design and Construction		
	YEAR1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
ENVIRONMENTAL ANALYSIS AND DOCUMENT *	24 mo.				
FINAL PERMITTING		12 mo.			
BRIDGE/ROADWAY ENGINEERING (FOR ROW and PERMITTING)	9 mo.				
RIGHT OF WAY ACQUISITION		12 mo.			
PRE-CONSTRUCTION BRIDGE AND ROADWAY ENGINEERING		12 mo.			
DESIGN/BUILD			36 mo.		

* Involves full cooperation with all local, state and federal agencies

©FIGG 2014

East County Bridge Project Costs

Turnkey Design/Build Proposal

COSTS

Design/Build Project

\$830 Million

**Further defined in first year of project development:
Right-of-way, mitigation, geotechnical conditions**

\$30 Million

Less than

\$860 Million

**Multi-year financing can be provided by this team so that public funds
can achieve this bridge over time**

Proposal to Clark County for the East County Bridge



Design and build 4-Lane East County Bridge with shoulders and 2 - 12' multi-use pathways: cars, trucks, buses, pedestrians, & bicyclists

Connects 192nd/SR-14 in Washington and NE Airport Way in Oregon with plans for future direct connection and interchange enhancements with I-84

Meet navigational channel clearances like I-205 - 300' horizontal, 144' vertical over shipping channel - alignment perpendicular to channel for added safety

Bridge over Government Island to preserve environment



Proposal to Clark County for the East County Bridge



Built using local labor, local materials and providing local economic stimulus

Alignment is away from homes. Convenient connection to commercial areas

Sustainable, eco-friendly, high strength, redundant and safe bridge

Low maintenance concrete bridge with LED roadway and aesthetic lighting

Community involvement in selecting bridge aesthetic features for a functional bridge sculpture that captures a sense of place



©FIGG 2014

Proposal to Clark County for the East County Bridge



Environmental analysis and document following NEPA - 2 Years

Design and build bridge in 3 years following permits and right-of-way

Complete new bridge in 5 years from Notice to Proceed

Total project costs under \$860 Million



Proposal to Clark County for the East County Bridge



Achieve Washington and Oregon DOT standards



Meet Local, State and Federal Requirements



Owners manual for care of your new bridge

Over 100 year life

