

Envision Tool Moves Project Sustainability Beyond Buildings



More infrastructure owners, designers and builders such as on Florida's \$2.3-billion I-4 upgrade are turning to new tool to build projects right and build the 'right project.' (Skanska)

By Debra K. Rubin, with Luke Abaffy and Greg Aragon

Two public-sector infrastructure owners with markedly different upgrades getting underway agree on one thing—that the projects have vastly improved thanks to the use of a new tool that allows participants to measure long-term sustainability and justify how and why investments will benefit users and communities.

The Florida Dept. of Transportation has embraced use of the new Envision infrastructure sustainability rating tool presented by its design-build team that was seeking to manage the \$2.3-billion upgrade of Interstate-4. FDOT program manager Loreen Bobo was intrigued that the Skanska-led team's informal use of the tool to rate its construction program resulted in Envision's version of a platinum award, which the firms included in what became a winning proposal.

While the team's project win was based on other factors as well, it has used the tool as a guide to alter project design to reflect added community input, more material reuse and boosted energy efficiency, among other

things.

"We need to do the right thing when it comes to the impact we are making on our future, and doing the right thing can start by having the conversation early in the project," says Bobo, who has become the first FDOT employee trained and credentialed to use Envision.

In Madison, Wis., Envision has helped the sewerage district in winning approval of a \$4.5-million project to transform an "eyesore" pump station into "a piece of community infrastructure" with added public amenities, says D. Michael Mucha, chief engineer and district director.

"Envision is a powerful accountability and quality assurance tool for the district," he says. "It allowed us to demonstrate to the public—our ratepayers—that their investment in public infrastructure is providing public value." The station is set to go to bid by next month. In less than three years since its 2012 launch, Envision is fast becoming the tool of choice for infrastructure owners, designers and builders to measure project success in sustainability—and beyond. "Envision is transforming how our clients are thinking about sustainability for infrastructure projects, and at a much faster pace than we imagined," says Michaela Wittmann, HDR's sustain-

ability program founder and director.

We have an internal sustainability training program and have credentialed over 200 people. We aren't trying to reach a % goal. Rather, we are strategically credentialing HDR leaders (so they understand the Envision goals), client leaders (so they can answer the critical questions and talk about the value of Envision) and our project designers and planners (so they can efficiently implement Envision). Some of our clients have over 100 ENV SPs on staff and many of our clients are asking us to help prepare some of their staff to take the Envision staff.

The approach takes a more holistic view of infrastructure projects than in the LEED measure used on buildings, that rates sustainability through a multitiered, credit-award approach based on resource use, operational resilience, ecosystem restoration, life-cycle costs and return on investment, among other measures.

The product of simultaneous development over the last

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weekly newspaper**

California Sub-Bid Request Ads

Project Name: Transbay Block 8
Project Location: San Francisco, CA
Pre-Bid Meeting: June 22, 2015 at 2:00PM
Bid Due Date: July 2, 2015
Meeting Location:
SFPUC Contractors Assistance Center
5 Thomas Mellon Cir
Suite 168
San Francisco, CA 94134
(415)467-1040
Requesting Bids for:
Mass Excavation & Shoring

Related California and Tenderloin Neighborhood Development Corporation are currently requesting bid proposals from qualified subcontractors and material suppliers based in San Francisco, including those certified with the Office of Community Investment and Infrastructure (OCII), Successor to the San Francisco Redevelopment Agency (SFRA), for the construction of the Transbay Block 8 Project. The OCII has established a subcontractor participation goal for this project at 50% SBE participation.

The Project is comprised of approximately 546 residential units and 18,000 square feet of neighborhood retail over a 3-level subterranean parking structure. The design features a 55-story tower, 65' and 85' podium buildings, townhomes and a publicly accessible mid-block paseo. The Project's residential program includes 116 for-sale condominiums, 280 market rate rental units and 150 below market rate rental units.

For more information please email TB8@related.com. A member of the team will be able to provide clarifications and answers to any questions. Please do not send your bids via email to this email address. Electronic bid submittals will not be reviewed. Bid proposals shall be submitted no later than 3pm on July 2, 2015 via hard-copy delivery to 44 Montgomery, Suite 1050, San Francisco, CA 94104 to the attention of: Jeff Lucas.

Transbay 8 Urban Housing, LLC
 44 Montgomery, Suite 1050
 San Francisco, CA 94104
 Phone: 415-677-4406 • Fax: 888-371-8739
Contact: Jeff Lucas
Email: TB8@related.com



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1530 W. 17th Street, Santa Ana, CA 92706

McCarthy Building Companies, Inc. is the General Contractor for the above listed project and is requesting a Bid Proposal for labor and/or material in your specialty of work.

SUBCONTRACTOR BIDS ARE DUE Thursday, July 9th, 2015 at 3:00 p.m. (PST)

THE PROJECT: Phased Work includes major renovation of 264,000 SF of the Campus Area including new underground utilities, a 25,000 SF Central Plant Building, a 1500 SF Electrical Building, and upgrading 7 existing buildings for connection to the Central Plant. Total value of this 2-year project is \$40.0 million. This project has an OCIP & Community Student Workforce Project Agreement (CSWPA) calling for 50% Local Hire & 25% Local Business per the Construction Services Agreement (CSA). This project starts October 1, 2015 with a 25-month overall schedule. Alternates are required for a 2-year & a 3-year Warranty.

Work categories include: Survey, Erosion Control, Demolition & Abatement, Site Demo & Earthwork, Site Utilities, Site Concrete, AC Paving, Pavement Markings, Fencing, Landscaping, Pavers, Rebar, Building Concrete, Masonry, Steel, Metal Deck, Carpentry, Cabinetry, Insulation, Waterproofing, Roofing, Sheet Metal, Doors-Frames-Hardware, Glass, Plaster & Drywall, Tile, Acoustical, Flooring, Painting, Misc. Site Specialties, Signage, Toilet Accessories, Water Fountain Feature, Elevator, Fire Sprinklers, Plumbing, HVAC, and Electrical-Comm-Fire Alarm.

This is a prevailing wage project with a 5-year average EMR of 1.25 or less requirement for the OCIP.

Prequalification - All subcontractor bidders must be prequalified to participate in this bid & meet McCarthy's Tier 1 requirements. Contact Kevin Helgevoid at McCarthy Building Companies for the On-line Prequalification Form & instructions. Suppliers: A list of prequalified subs is available upon request.

Bid Documents - A DVD of the bid documents is available upon request.

Disabled Veteran Business Enterprise (DVBE)

The District has adopted a Disabled Veteran Business Enterprise Participation Program (DVBE), which includes businesses owned by Disabled Veterans. The District has established a participation goal of 3%.

McCarthy is an equal opportunity employer and encourages DVBE participation.

A Bid Bond, and a 100% Performance & Payment Bond will be required from an admitted surety for subcontracts over \$100,000. Upon request, subcontractors will be required to provide evidence of their ability to provide same within twenty-four (24) hours.

McCarthy Building Companies, Inc.

Kevin Helgevoid x73392, Preconstruction Director
 20401 SW Birch Street, Newport Beach, CA 92660
 Phone: (949) 851-8383 • Fax: (949) 756-6841



Shimmick-Alstom, Joint Venture

LBE/SBE Subcontractor/Supplier Bids Requested For:

DBE Subcontractors and Suppliers Requested For:

Caltrain Modernization Program - Peninsula Corridor Electrification Project

Proposal Due Date: July 30, 2015

The Shimmick-Alstom, Joint Venture Design Build Team is actively seeking qualifications from DBE certified Subcontractors & Suppliers to provide services in the following scope areas for the Peninsula Corridor Electrification Project:

Construction: Electrical Supply, HVAC, Concrete Pumping & Placement, Demolition, Clearing & Grubbing, Drilled Concrete Piers & Shafts, Erosion Control, Masonry, Materials Testing/Inspection, Metal Fabrication & Supply, Pipe Supply, Miscellaneous Metals including Guardrails, MOT/ Traffic Control/ Flaggers, Noise/ Vibration Monitoring, Painting & Coatings, Paving & Striping, Plumbing (traction power substations), Precast Concrete, Rebar Fabrication/ Installation, Surveying/ Row, Temporary Fencing & Gates, Thermal & Moisture Protection, Tree Removal, Utility Location Services/ Potholing, Sanitation Supply & Maintenance, Traffic Control & Supplies, Wire Cable Supply, Trucking

Professional Services: Aerial Photography, Archaeology/ Paleontology, Environmental Compliance, Materials Testing, QA/QC, QSP/QSD, Surveying, Traffic Control Plans & Design

DBEs --Connect with Shimmick/Alstom project managers and discuss potential work scopes by contacting Sheldon Jefferson at 510-545-6302 or at sheldon@lusterassociates.com.

**ALL INTERESTED DBES ARE INVITED TO MEET WITH
 SHIMMICK-ALSTOM, JOINT VENTURE PROJECT MANAGERS**

**Tuesday, June 30th
 8:00 am – 10:00 am**

**Redwood City Woman's Club
 149 Clinton St., Redwood City, CA 94062
 (Near the Whipple Avenue Exit on Hwy 101)**

A Light Breakfast will be Served

**RSVP with Sheldon Jefferson by phone at (510) 545-6302
 or email at sheldon@lusterassociates.com**

The Peninsula Corridor Electrification Project (PCEP) is a key component of the Caltrain Modernization program. The PCEP will electrify the Caltrain Corridor from San Francisco's 4th and King Caltrain Station to the Tamien Caltrain Station in San Jose, convert diesel-hauled to Electric Multiple Unit (EMU) trains, and increase service up to six Caltrain trains per peak hour per direction. For general project information visit: www.caltrain.com.

California Sub-Bid Request Ads

**PROJECT: BROWN FIELD (SDM) AIRPORT RUNWAY 8L/26R REHAB
K-16-1227-DBB-3
City of San Diego**

****THIS PROJECT HAS A 13% DBE GOAL**
BID DATE: July 9, 2015 - BID TIME: 2:00 P.M.
Please respond by 5:00 p.m., July 8, 2015**

We are seeking quotes from certified DBE including, but not limited to, the following work items: Traffic Control, Asphalt Paving, Asphalt Crack Seal, Trucking, Equipment Rental, Sweeping, Electrical (Airfield), Demo, Geosynthetics, Material Supply, Asphalt Production.

Coffman Specialties, Inc. is signatory to Operating Engineers, Laborers, Teamsters, Cement Masons and Carpenters unions. Quotations must be valid for the same duration as specified by the Owner for contract award. Insurance and 100% Payment & Performance Bonds will be required. Waiver of Subrogation will be required. We will provide assistance/advice with obtaining Bonds/Insurance/Credit/Equipment. Plans and specs are available at no cost to interested DBE firms from the City of San Diego Public Works website using the Project ID # K-16-1227-DBB-3 and/or our San Diego Office. We are an EOE & seriously intend to negotiate with qualified firms.

If you have any questions, Please contact Marty Keane: Phone 858-536-3100, or email estimating@coffmanspecialties.com.

Non-DBE Subs/Suppliers: Indicate 2nd tier participation offered on your quotation as it will be evaluated with your price. For any bid proposal submitted on or after March 1, 2015 and any contract for public work entered into on or after April 1, 2015, the following registration requirements apply: Every Subcontractor is required to be registered to perform public work pursuant to Section 1725.5 of the Public Contract Code. No Contractor or Subcontractor shall be qualified to bid on, be listed in a bid proposal pursuant to Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered to perform public work pursuant to Section 1725.5. No bid shall be accepted nor any subcontract entered into without proof of the Subcontractor's current registration to perform public work pursuant to Section 1725.5. If used in our Bid, Coffman Specialties requires this proof be submitted w/in 24 hours of Bid Date.



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RGW Construction Inc. is seeking all qualified DBE (Disadvantaged Business Enterprises) for the following project:

**State Hwy in Marin County near Stinson Beach at 1.2 miles south of North
Panoramic Hwy
Contract no. 04-4S2204
Federal-Aid Project: ACSTP-P001(589)E
DBE Goal: 15%**

**Engineer Estimate: \$1,800,000 – Working days 140
Bids: July 1st, 2015 @ 2:00pm**

Requesting Sub-quotes for (including but not limited to: Fabrics and Oils, Construction Area Signs, Traffic Control, Clear and Grub, Roadway Excavation, Landscaping, Hydroseeding, Erosion Control, Aggregate Base, Asphalt Base., Asphalt Paving, Pile Driving, Structural Concrete, Rock Slope Protection, Thermoplastic Traffic Stripe & Marking, Painted Traffic Stripe & Marking, Pavement Marking, Signal Temp, Message Signs, Lighting & Sign Illumination, SWPPP Planning, Water Truck, Sweeper, Trucker, Storm Drain(Underground) and Rock Stain.

Scope of Work: Construct retaining wall, road, drainage, and landscape.

RGW is willing to breakout any portion of work to encourage DBE participation. Contact us for a specific item list.

Plans and Specs are available to view and copy at our office or the Caltrans website www.dot.ca.gov/hq/esc/oe/. Contact Andy Eldridge 925-606-2400 andrew.eldridge@rgwconstruction.com for questions, including bonding, lines of credit, or insurance or equipment or material suppliers. Subcontractors should be prepared to submit payment and performance bonds equal to 100% of their quotation. For bonding and other assistance, please call.

RGW Construction, Inc.

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Kiewit

Requests sub-bids from qualified Subcontractors and/or Suppliers seeking to participate in the Sacramento Regional County Sanitation District (SRCSD) Sacramento Regional Wastewater Treatment Plant (SRWTP) Disinfection Chemical Storage Project in Elk Grove, CA.

<http://www.epa.gov/> / <http://www.sba.gov/> / www.californiaucp.org

Subcontractors and Suppliers for the following project:

**Disinfection Chemical Storage Project
Contract No. 4207**

**Owner: Sacramento Regional County
Sanitation District**

Bid Date: July 2, 2015 @ 2:00 P.M.

Disadvantaged Business Enterprises (DBEs)

Minority Business Enterprise (MBE), Women Business Enterprise (WBE), Small Business Enterprise (SBE), Small Business in a Rural Area (SBRA), Labor Surplus Area Firm (LSAF), or Historically Underutilized Business (HUB) Zone Business Concern or a concern under a successor program wanted for the following scopes, including, but not limited to:

Concrete, Concrete Forming, Concrete Reinforcing Supply & Install, Cast-In-Place Concrete, Precast Concrete, Grouting, Masonry, Metals, Rough Carpentry, Architectural Woodwork, Thermal and Moisture Protection, Doors and Windows, Finishes, Painting and Coating, Signage, Specialties, Plumbing, Earthwork, Shoring, Asphalt & Gravel Paving, Aggregates, Fencing & Gates, Grading, Heating, Ventilating, & Air Conditioning (HVAC), Process Gas and Liquid Handling Purification, and Storage Equipment, Pollution Control Equipment, Water and Wastewater Equipment.

Bonding, insurance, and any technical assistance or information related to the plans or specification and requirements for the work will be made available to interested CUCP, MBE, SBE, SBRA, LSAF or HUB Certified DBE business suppliers and subcontractors. Assistance with obtaining necessary equipment, supplies, materials, or services for this project will be offered to interested certified suppliers and subcontractors.

**Subcontractor and Supplier Quotes are due
NO LATER THAN Jun 30, 2015 at 5 PM.**

Plans are available for viewing at our office at our address below and through SmartBidNet (SBN).

All subcontractors that are registered in our SBN database will receive an invitation to bid. Please visit <http://www.kiewit.com/districts/northern-california/overview.aspx> to register your company to be able to receive bidding information.

**Kiewit Infrastructure West Co.,
4650 Business Center Drive Fairfield, CA 94534
Attn: Victor Molina victor.molina@kiewit.com**

You can view the plans in our office during regular business hours by appointment.

100% Performance Bond and Payment Bonds are required for this project. Cost of bond will be reimbursable.

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California Sub-Bid Request Ads

Balfour Beatty Construction

2335 Broadway, Suite #300 • Oakland, CA 94612
(510) 903-2054

Contact: Chet Briens • cbriens@balfourbeattyus.com

PROJECT: 500 Folsom (Transbay Block 9)
LOCATION: San Francisco, CA
SUBJECT: Invitation to Bid and
Request for Bid Proposal
BID DUE DATE: July 15, 2015 at 2:00 PM

SCOPE OF WORK: Bid Package Group 2:

- Surveying
- Wet Utilities
- Personnel/Material Hoist
- Concrete
- Trash Compactor & Equipment
- Metal Stairs – Design/Build
- Dry Utilities
- Tower Cranes
- Structural Concrete/Rebar/PT
- Trash Chutes
- Window Washing Equipment – Design/Build

Proposing Subcontractor/Supplier

You are hereby invited to submit a bid proposal to and labor, material and equipment as necessary to perform the Work according to the your respective discipline per the corresponding Bid Package(s) listed above for the **Transbay Block 9** located in San Francisco, California. Your bid is to be in based on the Contract Documents, as prepared by SOM, and other Bid Instructions, Contract Appendices, and Attachments all as listed herein and in future Addenda.

KEY DATES/INFORMATION

PRE-BID MEETING: June 22, 2015 at 3:00PM
LOCATION: San Francisco Main Library
Latino/Hispanic Meeting Room
100 Larkin Street
San Francisco, California
LAST DAY FOR RFI'S: July 7, 2015 at 4:00PM
FINAL ADDENDA: July 9, 2015 at 4:00PM
BID PROPOSALS DUE: July 15, 2015 at 2:00PM

Bid Documents and other pertinent information can also be downloaded directly from Balfour Beatty Construction's **Egnyte** site at the following link:

Link to bid documents:
<https://bbcus.egnyte.com/fl/dKEzPOcx2u>

Link to prequalification site:
www.balfourbeattyus.com

Plans and Specs. are also available at Balfour Beatty Construction office.

PROJECT: OLD OTAY MESA ROAD IMPROVEMENTS
K-15-1216-DBB-3
City of San Diego

****THIS PROJECT HAS A 10% DBE/DVBE/WBE/MBE/SLBE/ELBE GOAL****

BID DATE: July 1, 2015 · BID TIME: 2:00 P.M.
Please respond by 5:00 p.m., June 30, 2015

We are seeking quotes from certified DBE/DVBE/WBE/SLBE/ELBE's including, but not limited to, the following work items: Temp K-Rail, Clearing & Grubbing, Structure Exc, Stone Rip Rap, Cold Mill AC, AC Overlay, PCC Sidewalk, Curb Inlet, Catch Basin, Drainage Ditch, Curb & Gutter, Cable Railing, Guardrail, Chain link Fence, Storm Drain, Street Lighting, Survey Monuments, Re-vegetation & Erosion Control, WPCP, Noise Barrier, Trucking, Sweeping.

Insurance and 100% Payment & Performance Bonds will be required. We will provide assistance/advice with obtaining Bonds/Insurance/Credit/Equipment. Plans and specs are available at no cost to interested DBE/DVBE/WBE/SLBE/ELBE firms from the City of San Diego Public Works website and/or our San Diego Office. We are an EOE & seriously intend to negotiate with qualified firms.



9685 Via Excelencia, Ste 200 • San Diego, CA 92126
Phone: (858) 536-3100 • Fax: (858) 586-0164
e-mail inquiries to: estimating@coffmanspecialties.com

Sub Bids Requested From Qualified
DBE Subcontractors & Suppliers for
**County of Merced - Santa Fe Avenue Over
Deadman Creek Bridge Replacement Project**
Location: Merced County, CA
300-1074 /
Federal Aid Project No. BRLO 5939(081)
Bid Date: June 29, 2015 @ 3:00 PM

McGuire and Hester is seeking qualified subcontractors in the following trades: survey; construction area signs; SWPPP; fencing; striping; bridge demolition; furnish & drive piles; prestressing cast-in-place concrete; reinforcing steel; joint seal; metal beam guard railing; erosion control; and concrete barrier.

We will pay up to and including one and one-half percent (1-1/2%) of your bonding cost. Certification assistance is available, as well as viewing plans and specs.

McGuire and Hester

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Phone: (510) 632-7676 • Fax: (510) 562-5209
Contact: Keith Ones

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Sub Bids Requested From Qualified
DBE, MBE, WBE
Subcontractors & Suppliers for
East Bay Municipal Utility District
Camanche Water Transmission Pipeline
Location: Ione, CA
Project No. 2093A
Bid Date: July 1, 2015 @ 1:30 PM

McGuire and Hester is seeking qualified subcontractors in the following trades: trucking and divers.

We will pay up to and including one and one-half percent (1-1/2%) of your bonding cost. Certification assistance is available, as well as viewing plans and specs.

McGuire and Hester

9009 Railroad Avenue • Oakland, CA 94603
Phone: (510) 632-7676 • Fax: (510) 562-5209
Contact: Jim Falk

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Envision Tool Moves Project Sustainability Beyond Buildings

Continued from page 1

decade by three engineering associations—the American Society of Civil Engineers, the American Public Works Association and the American Council of Engineering Cos.—and Harvard University’s Zofnass Program for Sustainable Infrastructure in its graduate school of design, Envision now is managed and quasi-commercialized by an umbrella group, the Institute for Sustainable Infrastructure (ISI), and supported by a broadening array of industry firms.

Only six projects have gone through official Envision “verification” by ISI, akin to LEED ratings by the U.S. Green Buildings Council. But close to 30 projects are in review or close to it, says William A. Bertera, ISI president and CEO, and as many as 450 being rated in informal self-assessments.

“There’s been a lot of tire-kicking,” he adds, noting that more of the better-scoring projects now are being pushed for formal appraisals “to have the success recognized.” According to Bertera, at least 20% of applicants for ISI official ratings have scored better than they did in self-assessments. “Envision is critical to the industry because it is the only rating system, among hundreds, with the credibility, scale and reach into hundreds of thousands of capital program decision-makers,” says John Williams, CEO of consulting firm Impact Infrastructure, which is developing Envision capability to also measure project economic value and return on investment. “It is the only tool in the world that addresses the value of public benefit and provides real-time feedback. The existence of an objective, transparent and comparable business case makes a huge difference in dealing with stakeholders.”

Stantec Vice President Marty Janowitz, whose firm is an ISI charter member, says, “Envision actually asks project teams to consider first what is the right project to pursue.” Andrew Sauer, green infrastructure manager for Burns & McDonnell, adds that it “can help sell new ideas that sometimes are not even on the table.”

The New York City Dept. of Environmental Protection turned to Envision after investigating “many of the 200-plus rating systems on the market” and has done 37 self-assessments on bridges, dams and water-wastewater facilities, says a spokesman. “Envision is not a ‘one-size-fits-all’ application,” he says, adding that the agency “dug deeper” once it validated results. It now is “actively pursuing” five verifications through ISI, he says.

Some 3,200 firm and owner professionals have passed ISI’s online Envision credentialing process, with Bertera predicting the number could surpass 100,000. Many firms have set internal goals for required or encouraged credentialed employees and are touting that in proposals.

HDR has credentialed more than 200 employees and are helping clients prepare their own staffs to test the Envision test, says Wittman.

Skanska “has developed an Envision training matrix that includes employees of every level throughout our heavy civil construction business unit,” says a spokesman. The Madison sewerage district aims to have 100% of its engineering staff credentialed by year-end and requires the same of outside consultants. Stantec notes its launch of an “aggressive and comprehensive strategy” last year to promote Envision internally and to clients, says Janowitz. The firm now has exceeded a goal of 100 credentialed employees and has included Envision elements in “as many proposals as possible to expose clients to this tool and way of thinking,” and to show successful use on projects, he adds. The firm helped push the Grand Bend wastewater treatment upgrade on Lake Huron in Ontario to gain ISI

platinum Envision verification this month, the first such designation in Canada and the first for a global sewerage facility.

Janowitz says the firm and client municipalities “saw a real opportunity to turn ... negative views of a wastewater treatment facility into something positive—something that would not only not be viewed as a blight on the communities, but something that would be appreciated.”

He says use of Envision resulted in design changes that boosted facility resilience and short and long-term climate change risks, saved municipalities more than \$7 million and can be expanded in size based on peak inflows and population growth.

The Grand Bend project has already “directly contributed” to the firm’s win of an even larger project in Ontario, says Janowitz.

He adds that Stantec also is using Envision on other types of infrastructure projects, such as a port project in Vancouver and community development in Georgia. A transportation project is set for official certification next month.

Envision “is a highly flexible tool and is non-prescriptive in nature unlike some other rating systems that are designed to apply to one type of project,” says Janowitz. It encourages project teams to challenge assumptions and the status quo.”

Los Angeles County’s Public Works Dept. also earned platinum status for its Sun Valley watershed project, a first of its kind, says Youn Sim, sustainability manager. He says the project received 67% of applicable Envision credits, the most any project has received to date under the ISI rating. Platinum designation can be reached at 50%.

Envision proponents say the approach’s flexibility and broad applicability limit the credits to any one project, but concede the number can be misunderstood by stakeholders. The department has used Envision to develop more than 60 projects, from water resources to transportation to waste management and is the first public agency to credential 100 staffers, says Sim.

The King County, Wash., wastewater treatment unit is piloting Envision on three major capital projects—a pump station and forcemain upgrade, new combined sewer overflow treatment plant and an interceptor upgrade, says Kathy Loland, project planning and delivery section manager.

She says use of the approach “has woven sustainability into the fabric of the projects themselves,” with impacts on agency decision-making in areas such as construction waste recycling, energy and water conservation, stormwater management and community impact. Loland says Envision’s scoring of “social justice impacts” related to facility siting needs improvement.

However, the InterAmerican Development Bank has used Envision to rate community impacts on projects it funds in 26 Latin American and Caribbean nations, says Ana Maria Vidaurre-Roche, its principal investment officer.

Projects are scored by the Harvard program, but none have yet been submitted for ISI verification. Even so, she says, use of Envision metrics “can make project teams think differently.” Cited projects include a rail line in metropolitan Lima, Peru, that has improved greenhouse gas emissions and an airport in Galapagos, Ecuador, that provides 30% of its own energy needs. “Envision seems to be a more comprehensive tool than LEED as if looks at climate, environmental, use of resources as well as stakeholder involvement and impact on community, together with governance and inno-

vation,” says Vidaurre-Roche. Going forward, ISI’s Bertera recognizes that with Envision’s creation as a tool “largely focused on design and planning,” metrics for later construction and O&M phases need more attention.

Developing a construction “module” is among the task orders of Envision’s new review board, which had its first meeting in May. “To take advantage of the shorter time scales more closely associated with the construction phase of a project, the tool needs to focus more on practical ways to build that have more of an impact upfront,” says Skanska Vice President Paul Haining, one of the contractor’s managers who will lead the effort.

Stantec’s Janowitz also sees attention to allow Envision to be used in a “systems” approach that will allow planning for multiple projects and across types of infrastructure.

Users also report more interest by power and industrial clients. ISI is outreaching to more contractors and private-sector owners. Bertera notes a recent Dow Chemical inquiry. ISI also is refining Envision’s metrics to measure return on investment that encompasses a project’s financial, social and environmental impacts—referred to as the triple bottom line.

Impact Infrastructure’s Williams is working with IT firm Autodesk to perfect AutoCASE, a cloud-based tool that links Envision to visualization software. “You plug in project parameters and the tool provides a probability-based return on investment dollar value,” says William A. Wallace, a Colorado-based sustainability consultant and early developer of Envision. “Our AutoCASE tool is the only cloud-based automated product that plugs into BIM technology to run real-time cases mapped to Envision,” says Williams, who pioneered the technology at HDR before retiring in 2012 to form his firm. “Our goal is to create a common analytical engine that runs sector specific metrics” and enables project comparisons “on the basis of total returns,” he says.

Stantec used the ROI tool on work it did to develop green infrastructure development guidance analysis for Pima County, Ariz., working with Impact Infrastructure as a pilot project. “It was quite helpful in analyzing and supporting analysis and conclusions regarding opportunities to utilize Sustainable ROI to develop and adopt practices and support these options with a robust business case,” says Janowitz. By analyzing choices and full benefits over a project’s entire life cycle, “We believe it can be of benefit for designers and engineers and can be a way to communicate results and defend choices to political leaders or to the public,” he adds.

Impact Infrastructure recently released an AutoCASE version that includes Canadian data and green infrastructure cost estimating features, Williams adds.

Madison sewerage official Mucha sees greater Envision acceptance “if we start to frame [it] as more of an accountability and quality assurance tool and less as a sustainability tool.” As an ISI director, “that is something I will want to see happen,” he adds. Burns & McDonnell’s Sauer, an Envision review board member, says the tool offers “an edge in the marketplace.”

Envision expertise can provide more firms with “the opportunity to move up the food chain,” adds consultant Wallace. “Instead of responding to RFPs, they can help plan the infrastructure investment programs, figure out how to deliver projects under conditions of uncertainty and do so charging higher rates.”

Source: <http://enr.construction.com>