



Institute for
Sustainable
Infrastructure



FOR IMMEDIATE RELEASE:

The Huntington Levee project in Fairfax County, Virginia earns Envision Bronze for Sustainable Infrastructure

WASHINGTON, D.C. – April 24, 2019 – The Institute for Sustainable Infrastructure (ISI) announced today that the Huntington Levee project in Fairfax County, Virginia is the recent recipient of the Envision Bronze award for sustainable infrastructure.

Background

The Huntington community, built prior to the enactment of the current floodplain regulations, has been exposed to floods due to tidal surges from the Potomac River and flash flooding from the Cameron Run Watershed. Since 2002, three floods have damaged property in this community. In this community, more than 160 homes are in the floodplain designated by the Federal Emergency Management Agency (FEMA)—all of which are considered to be at risk of flooding in the future. At the request of Fairfax County, the United States Army Corps of Engineers studied the best ways in which to protect the Huntington community from future floods. The study examined a number of options, including dredging Cameron Run, buying the flood-prone properties, and flood-proofing individual homes. The study ultimately found that the most cost-effective and sustainable way to manage flooding risks in the area was to build a levee and pumping station. This is now known as the Huntington Levee project.

About the Project

The Huntington Levee project consists of two main elements: a levee that runs parallel to Cameron Run that consists of an earthen embankment and a series of steel-reinforced concrete panels formed in the shape of an I, known as an I-wall, as well as a two-stage pumping station located at the east end of the levee. The levee itself is 2,800 feet long, beginning west of Fenwick Drive and running eastward. The earthen embankment portion of the levee is between 6 and 11 feet high, with a 4-foot high I-wall situated on the top. The top of the levee is 13 feet wide and includes an 8-foot wide asphalt recreational trail. The project also includes a collection drain system to control ground water seepage, new storm drains to connect the existing storm drains to the pumping station, and concrete channels and a vegetated swale to divert stormwater collected behind the levee to the pumping station. The whole system has been designed to protect the community from extreme 100-year flooding events—floods that have a one per cent chance of occurring in any given year.

Fairfax County's Department of Public Works and Environmental Services delivered this award-winning sustainable project in close collaboration with lead engineer Arcadis U.S., Inc., whose team included Michael Baker International and William H. Gordon, Inc. Regulatory partners included FEMA and the Virginia Department of Environmental Quality. Archer Western was the construction contractor.

"This project is vital to ensuring the safety of the Huntington community from risks associated with flooding. Hundreds of people in the area can rest assured they are better protected as a result of this project," said Melissa Peneycad, ISI's Acting Managing Director. "ISI is pleased to award this project with Envision Bronze for sustainable infrastructure."

"Envision asks not only are you doing the project 'right', but also, are you doing the right project," says Fairfax County's James Patteson. "The Huntington Levee will protect 160 homes in an affordable neighborhood with easy access to mass transit. The project includes saving trees, building a playground, and adding trails to enhance community amenities. The Huntington community will be safer and more resilient, with improved facilities. This is what Envision and sustainable development is all about."

The Envision sustainable infrastructure rating system assesses sustainability in five categories: Quality of Life, Leadership, Natural World, Resource Allocation, and Climate and Resilience. These contribute to positive social, economic and environmental impacts on a community during the planning, design and construction of infrastructure projects. Many aspects of the project contributed to it earning an Envision Bronze award, including:

Quality of Life

The project provides necessary and long-term protection from flooding for properties in the Huntington community that fall within the FEMA-designated floodplain. Past flooding events have caused safety concerns for residents and have led to significant property damage—issues which are being rectified as a result of this project. In addition, the siting of the levee provides protection for the maximum number of properties within the floodplain, while reducing visual and noise impacts to the community.

The project also includes a new trail atop the levee for pedestrians and cyclists which will connect to a larger network of trails, thereby improving access to recreational opportunities for residents. Fairfax County is also making improvements to a neighborhood playground in Farrington Park which is located near the levee.

Leadership

Broad and comprehensive community engagement has been a top priority for the design team since the earliest stages of project inception through construction. Working closely with the community helped the design team reach consensus with the community on key design features, alleviated concerns, and led to additional improvements, such as the Farrington Park improvements. The County overwhelmingly voted to fund the project with 70% in favor of a bond referendum.

Climate and Resilience

The very nature of this project is to protect the community against flooding risks which are expected to be exacerbated by climate change. The Huntington Levee project has been designed to protect against 1-in-100-year floods, or floods that have a one per cent chance of occurring within any given year. This level of protection will help safeguard the community for decades to come.

"The Huntington Levee is an example of the importance of sustainable solutions. Envision was a key part of the County's approach. We are proud the project is receiving this award and appreciate ISI's engagement and recognition of projects that create a sustainable future," said Doug Sawyers, Arcadis Senior Vice President.

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PROJECT ORGANIZATION INFORMATION:

About Fairfax County's Department of Public Works and Environmental Services: The Fairfax County Department of Public Works and Environmental Services builds and maintains safe, reliable infrastructure that improves public health and provides a high quality of life for residents. The department's four business areas – Solid Waste Management, Capital Facilities, Wastewater Management, and Stormwater Management – work together to create and preserve sustainable communities. www.fairfaxcounty.gov

About Arcadis: Arcadis is the leading global design and consultancy for natural and built assets. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services we work in partnership with our clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets. We are 27,000 people active in over 70 countries that generate \$3.5 billion in revenues. We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world. www.arcadis.com

About Envision®: Envision is the product of a joint collaboration between ISI, which was founded by three national engineering associations: American Society of Civil Engineers (ASCE), American Council of Engineering Companies (ACEC) and American Public Works Association (APWA), and the Zofnass Program for Sustainable Infrastructure at Harvard University Graduate School of Design. Information on ISI and Envision can be found on the ISI website, www.sustainableinfrastructure.org.