

ENTRY FORM



DVASE 2019 Excellence in Structural Engineering Awards Program

PROJECT CATEGORY (check one):

Buildings under \$5M		Buildings Over \$100M	
Buildings \$5M - \$15M	<input checked="" type="checkbox"/>	Other Structures Under \$1M	
Buildings \$15M - \$40M		Other Structures Over \$1M	
Buildings \$40M - \$100M		Single Family Home	

Approximate construction cost of facility submitted:	\$8 million
Name of Project:	The Discovery Center
Location of Project:	Philadelphia, PA
Date construction was completed (M/Y):	September 2019
Structural Design Firm:	CVM
Affiliation:	All entries must be submitted by DVASE member firms or members.
Architect:	DIGSAU
General Contractor:	INTECH

Company Logo (insert .jpg in box below)



Important Notes:

- Please .pdf your completed entry form and email to bsagusti@barrhorstman.com.
- Please also email separately 2-3 of the best .jpg images of your project, for the slide presentation at the May dinner and for the DVASE website. Include a brief (approx. 4 sentences) summary of the project for the DVASE Awards Presentation with this separate email.

- Provide a concise project description in the following box (one page maximum). Include the significant aspects of the project and their relationship to the judging criteria.

The Discovery Center is an urban bird sanctuary and leadership development center on the former site of the East Park Reservoir in Philadelphia, PA. It was conceived in a partnership between The Audubon Society of Pennsylvania, Outward Bound Philadelphia and the Strawberry Mansion neighborhood, with the aim of connecting city residents with nature.

The building is situated on the ridge of an earthen bank at the southern end of the former reservoir, with a 25-foot setback from the edge of the water. It stretches nearly 300 feet along the bank, providing unobstructed water views to the north from all locations in the building. The primary building framing is exposed wood roof framing and wood-framed shear walls, with large window openings at the north elevation to provide the water views.

The roof framing mainly consists of prefabricated wood roof trusses clear-spanning 48 feet over the workspaces, with an additional area of exposed laminated veneer lumber (LVL) rafters and parallel strand lumber (PSL) beams in the lobby configured as such for geometry restrictions. Through a southward-sloping, horizontal bottom chord in the trusses over the workspace areas in the northern portion of the building, elevations remain at a minimum as the building recedes into the surrounding landscape.

Furthering the relationship between building and site, the exterior building and adjacent site walls were clad with a charred wood façade to create a subtle natural setting that welcomes visitors. The technique is an ancient Japanese art called Shou Sugi Ban, in which the western red cedar façade boards are charred by fire preserving the wood and protecting it from weather and pests.

A 40-foot-tall, indoor climbing tower is located at the center of the building and is surrounded by reinforced CMU walls with windows at two of the tower corners that have a sloping edge which get wider higher on the tower on two of the elevations. The CMU walls were designed and detailed in coordination with the climbing wall manufacturer to accommodate attachment of the climbing wall. Cantilevered steel framing was utilized inside the climbing tower to support the roof framing at the corner windows.

Other building features included ganged prefabricated wood roof trusses spanning 40 feet to support a sliding partition wall while maintaining a strict deflection criteria, wood framed rain leaders supported on the existing reservoir concrete lining slabs which were detailed to hinge on the building avoiding damage to the facade, windows with bird strike protection consisting of either etched bands (high tech bird strike protection) or rope cording (low tech bird strike protection), and a set of custom, hand-forged steel pivoting gates fabricated from weathering steel by local artist Warren Holzman.

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South Elevation with climbing tower and breezeway

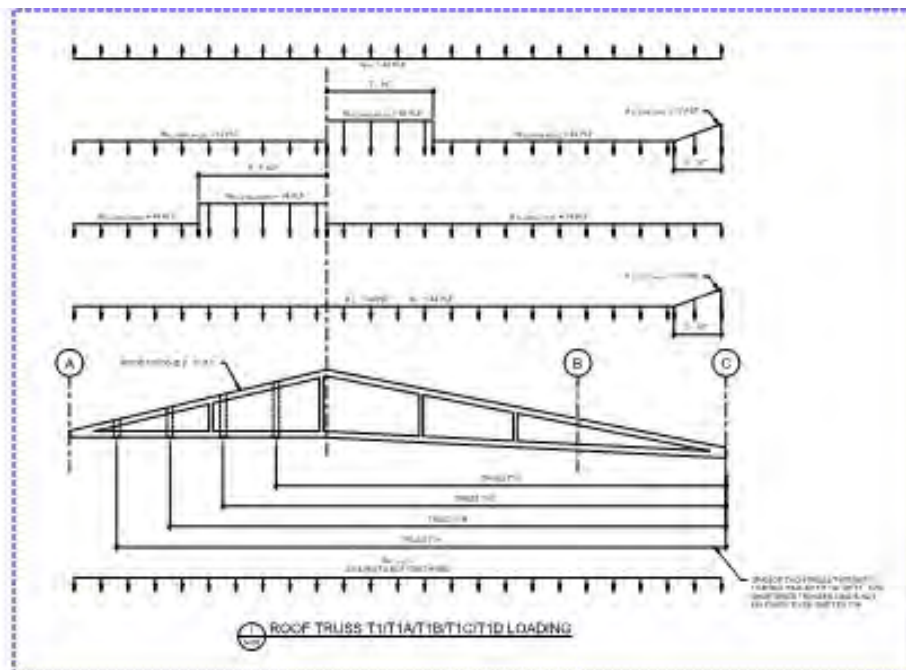


South Elevation showing proximity to water with climbing tower, wood framed rain leaders supported on existing reservoir lining slabs

- The following 5 pages (maximum) can be used to portray your project to the awards committee through photos, renderings, sketches, plans, etc...



North Elevation from Reservoir Drive



Roof Truss Diagram showing sloped bottom chord



Shou Sugi Ban exterior cladding



Shou Sugi Ban exterior cladding with climbing tower corner window




Interior with exposed roof framing and bird strike protection (low tech) on windows

By signing, signatory agrees to the following and represents that he or she is authorized to sign for the structural design firm of record.

All entries become the property of DVASE and will not be returned. By entering, the entrant grants a royalty-free license to DVASE to use any copyrighted material submitted.

If selected as an award winner, you may be offered the opportunity to present your project at a DVASE breakfast seminar. Would you be willing to present to your colleagues? YES NO

Submitted by:

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