ENTRY FORM

DVASE
2017 Excellence in Structural Engineering Awards Program

PROJECT CATEGORY (check one):

Buildings under $2M		Buildings Over $100M	X
Buildings $2M-$10M		Other Structures Under $5M	
Buildings $10M - $30M		Other Structures Over $5M	
Buildings $30M - $100M		Single Family Home	

Approximate construction cost of facility submitted:	$124.6 million
Name of Project:	Rodin Square
Location of Project:	Philadelphia, PA
Date construction was completed (M/Y):	August 2016
Structural Design Firm:	The Harman Group, Inc.
Affiliation:	**All entries must be submitted by DVASE member firms or members.**
Architect:	MV+A Architects
General Contractor:	INTECH Construction

Company Logo (insert .jpg in box below)

Important Notes:

- Please .pdf your completed entry form and email to bkoroncai@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.

Covering almost three acres and sitting on nearly a full square block, the Rodin Square development, a complex 520,000 SF mixed-use project, combines high-end residential with amenities and 85,000 SF of health-oriented retail with below and above ground parking in a grand, glass, stone and brick fronted building located in Philadelphia's museum district.

The nine-story Dalian on the Park features 293 luxury residential apartments and includes a hotel-style lobby and media lounge with a 20-foot-tall glass façade, shared public spaces including a billiards room and a media bar, a demo kitchen, a state-of-the-art fitness center and yoga room and a 30,000 SF rooftop Sky Park with an infinity pool, an indoor/outdoor heated cabana, an outdoor kitchen with multiple grills and a large green roof feature.

The project is situated on a site that was previously the home of the Best Western Center City Hotel, a four-story building supported on deep foundations. With this tight site, the team had to work around the existing retaining walls and below-grade obstructions. Column foundations were coordinated around the existing deep foundations.

The residential tower is supported on and rotated 40 degrees with respect to much of the retail podium structure, a portion of which fronts Hamilton Street. Hamilton Street is parallel to the Benjamin Franklin Parkway and rotated 40 degrees from the typical city street grid. This necessitated designing a significant portion of the podium structure at the second floor as a transfer level with transfer girders up to 40 inches deep, weighing up to 431 pounds per foot with cover plated flanges where required.

The ground floor of the retail podium will be the new home of a 55,000 SF Whole Foods Market, a flagship store that will be one of the company's largest and most luxurious, featuring a 5,000 SF café, beer garden pub, specialty food stations, cooking venues and a two-story dramatic glass façade. The design of the Whole Foods Market was subject to more strict floor flatness and profile requirements than is standard practice. Another structural challenge was the support of the rooftop pool and up to four feet of soil and landscaping over the Whole Foods Market footprint. Other retail tenants will include CVS/Caremark, Santander Bank and Thomas Jefferson University Hospital.

A mezzanine that supports specialty mechanical equipment and back of house functions for the Whole Foods Market is located between a roof level mechanical space at the second floor level and the loading dock at ground level below. Because of loading dock clearance and programming constraints, the mezzanine is suspended from the second floor transfer level. The mezzanine structure was depth restricted to 15 inches maximum (4 ½" composite slab on metal deck with nominal ten-inch-deep beams) and designed to support superimposed loads of up to 300 PSF.

A further requirement of Whole Foods Market was the need for an interstitial mezzanine above the retail floor, below the second floor transfer level that would capture and direct to drains, liquid from the potential failure of sanitary sewer, storm sewer, domestic water or fire suppression lines below the footprint of the tower above. This mezzanine is suspended from the second floor transfer level and designed to support up to the equivalent weight of six inches of water.

Based on local site storm water management requirements, in addition to a below-grade storm water detention basin, a bio-retention basin was required. The bio-retention basin would typically be constructed on grade, however, due to tight site constraints, it was required to be supported on the second floor level roof above the residential loading dock area. The basin is approximately 2200 SF and the structure is designed to support a superimposed load of 650 PSF within the basin footprint for basin structure weight, three feet of gravel and soil media and two feet of water over the top of the soil surface under the maximum design rain event.

Rodin Square will also include five tiers of below- and above-grade structured parking for 490 cars; 170 below grade parking spaces are exclusively for the use of Whole Foods Market customers. The above grade parking is clad in perforated metal panels of varying colors which add dramatic visual interest to the mass.

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

Image 1: Precast parking garage under construction. Looking southeast – February 2015

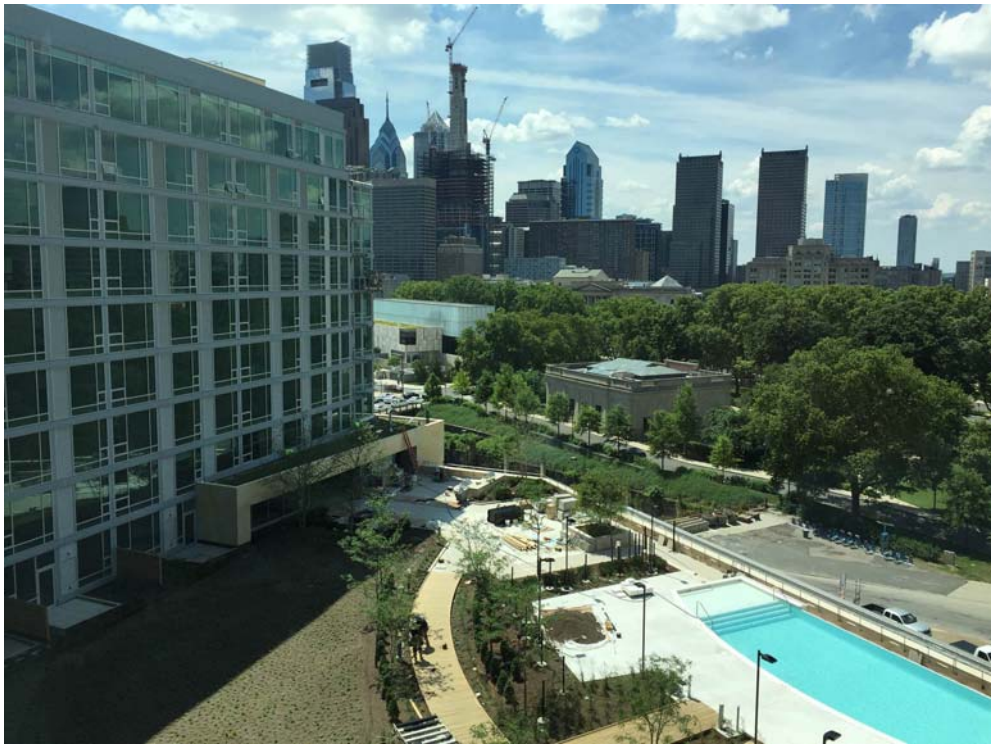


Image 2: Sky deck nearing completion. Looking Southeast – June 2016

Image 3: Braced frame at expansion joint. Looking southeast – May 2015

Image 4: Mechanical/BOH Mezzanine suspended from the second floor podium transfer level. Looking southeast from below-grade parking entry – June 2015

Image 5: Exterior view. Looking northeast – November 2015

Image 6: Grand opening, September 2016

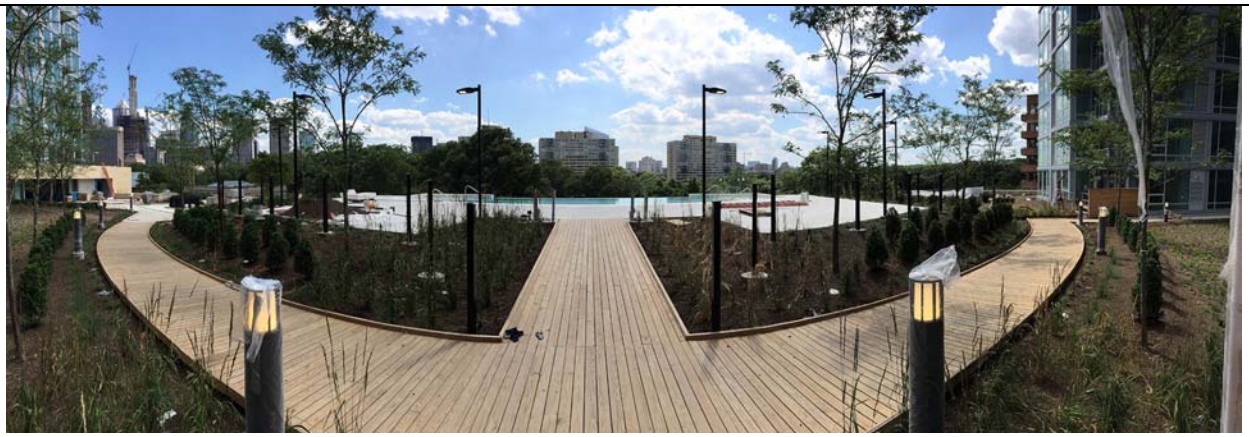


Image 7: Sky deck. Looking southwest – June 2016

Image 8: Exterior rendering. Looking northeast

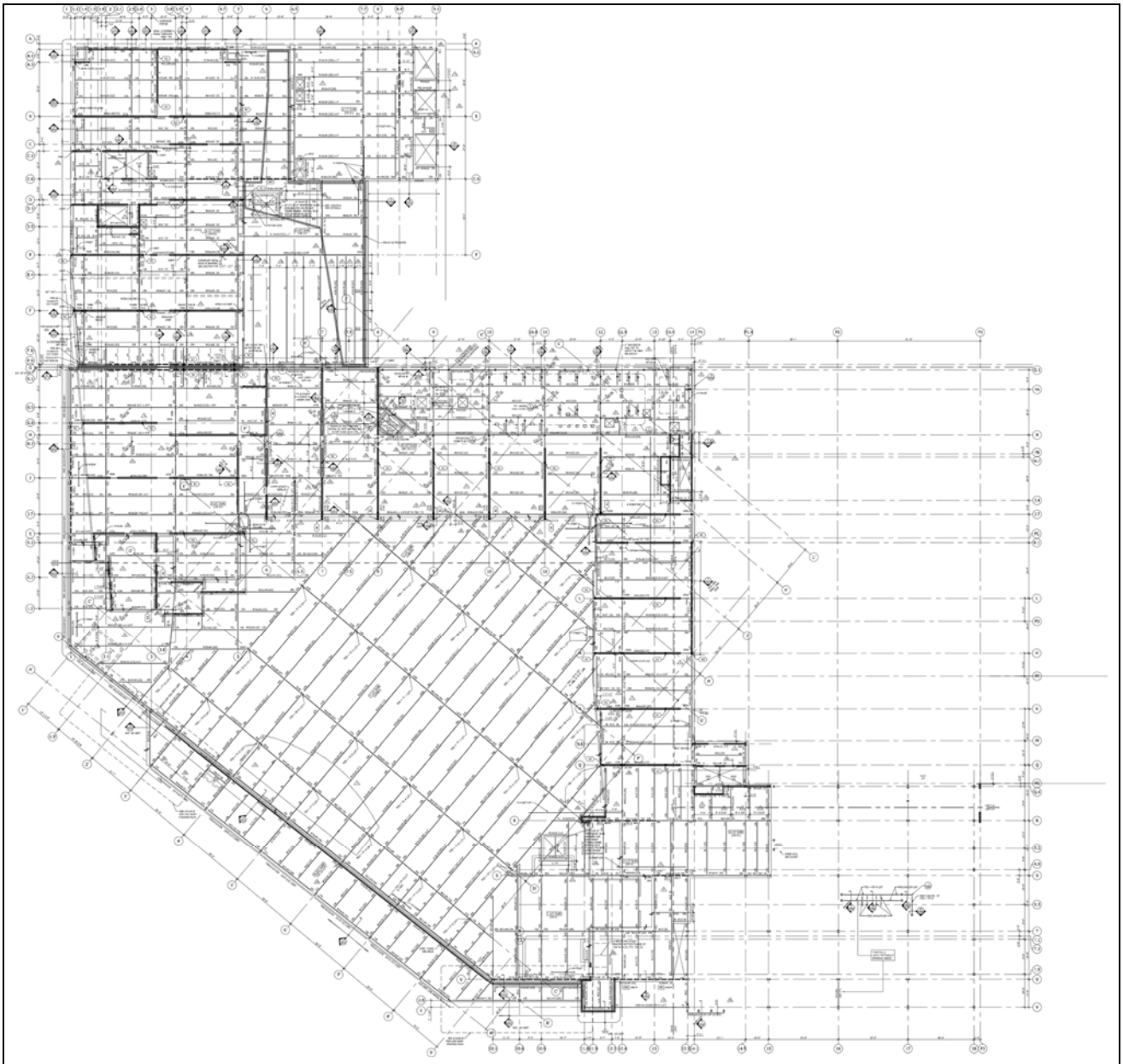


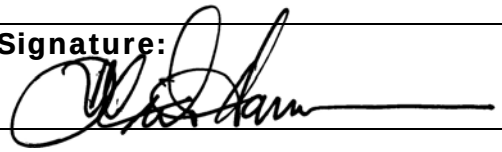
Figure 1: Second floor podium transfer level framing plan

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 is granted 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:

Print name: **D. Kirk Harman**	**Signature:** 	**Date:** **April 17, 2017**

Submitting Firm:	**The Harman Group, Inc.**	
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