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MerriweatherPark.org

Merriweather Park
at Symphony Woods

To: Residents of Howard County & Interested Parties
From: Michael McCall, President & CEO, Inner Arbor Trust
Date: July 15, 2016
Re: Chrysalis Construction

The Inner Arbor Trust and its world class team of designers, engineers, contractors and specialty fabricators and installers are moving forward on all fronts in the development of the Chrysalis stage, pavilion and sculpture in Merriweather Park at Symphony Woods; designed by award winning international architect/artist, Marc Fornes, of the New York City based THEVERYMANY (theverymany.com). The construction details of the build design are the responsibility of the Maryland based Architect of Record, Living Design Lab (livingdesignlab.com), and its Engineer, Washington DC based Arup (arup.com).

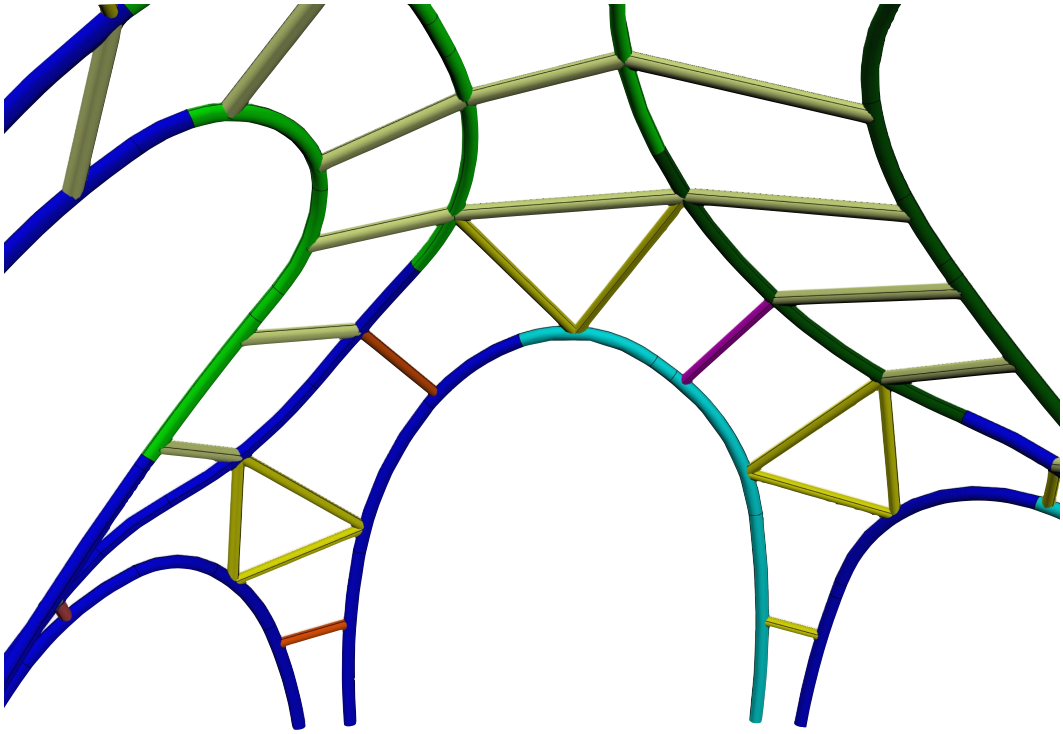
Steel Structure Erection

Fabricated by Walters Group in Hamilton, Ontario (waltersgroupinc.com), the 110 pieces of curved 10 inch, “Primary” steel tubes and straight 8 inch, “Secondary” steel tubes are being assembled on the Chrysalis concrete foundation. The Primary connections feature two, 1 inch thick, 16 inch diameter, steel plate flanges, each with 16 x 3.5 inch bolts forming a formidable structural bond. The systemically irregular steel becomes structurally one with the Chrysalis foundation via 92 bolts that secure the 23 Primary Steel tubes to the concrete, structural diaphragm, floor.

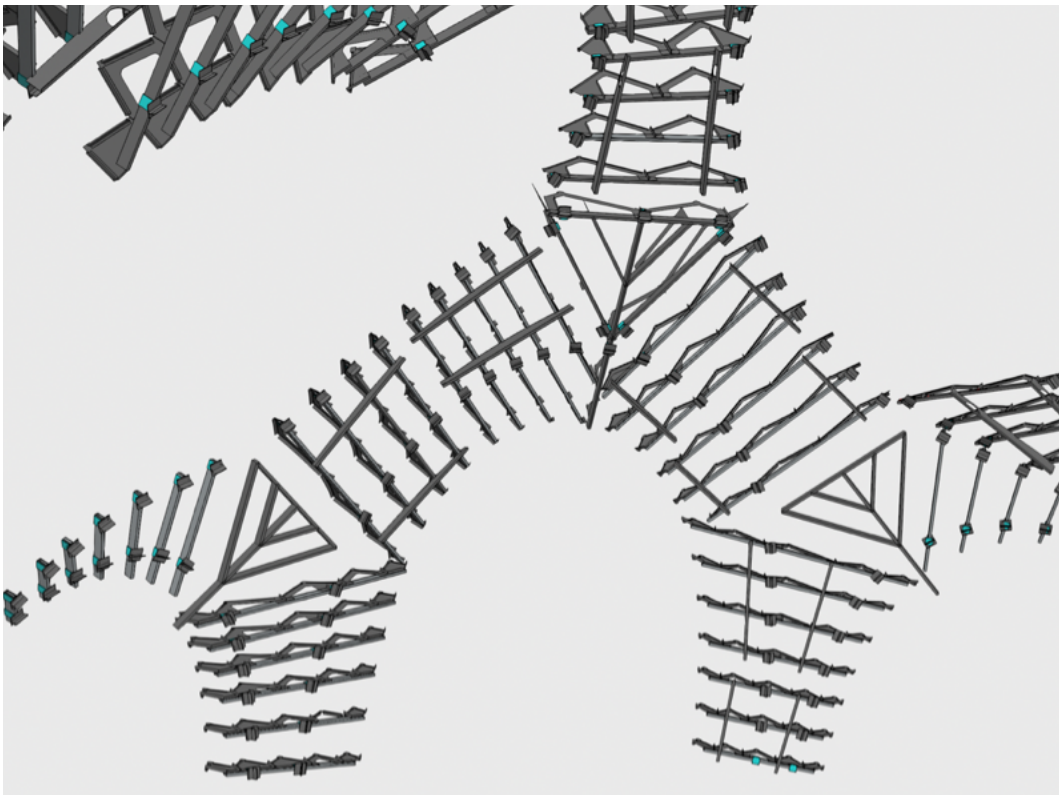
Terrance “Terry” Strobel, Superintendent of Steel Erection

Like every member of the Inner Arbor Trust’s team, the extraordinary Chrysalis steel erection is the responsibility of extraordinary talent. Terry Strobel is the Superintendent of Steel Erection for Metropolitan Walters, the Walters Group steel erection division based in Manhattan. A proud member of Ironworkers Local 40 in New York City, Terry has thirty years of amazing steel erection experience, ranging from aerospace projects for Kennedy Space Center and Boeing, to prestigious cultural projects for New York’s Lincoln Center and Carnegie Hall. Terry is especially proud of erecting a 395 foot tall antenna on top of a 52 story office building in Times Square, and creating 5 acres of structured “land” over the rail yards between the Hudson and the NYC Post Office.

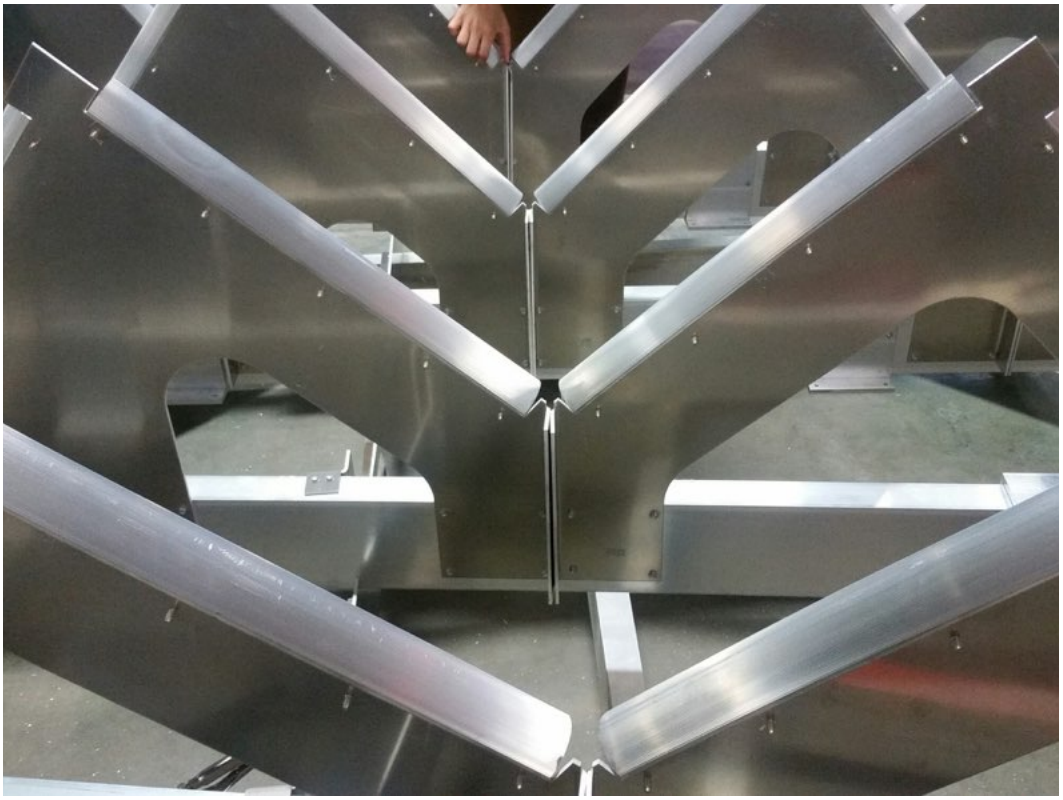
Model The Behavior



Designed by the Washington office of the global engineering powerhouse, Arup (arup.com), the Chrysalis steel structure is defined to support designer Marc Fornes' constantly changing curvaceous form, with eight asymmetric arches, which make the structure experientially semipermeable, framing the natural beauty of the Park setting, while making the Chrysalis stage, pavilion and sculpture visually and physically very accessible. Between these arches are giant asymmetric swooshes (not an engineering term) and seven traditional and sturdy triangles. All of these pieces come together by what engineers call "moment" connections, meaning that once bolted, the hemispherically shaped cage of steel will react like any great organization – as one structural unit, strong and stable by being strategically flexible, transferring work loads across the 108 foot long, 50 foot high free span space.

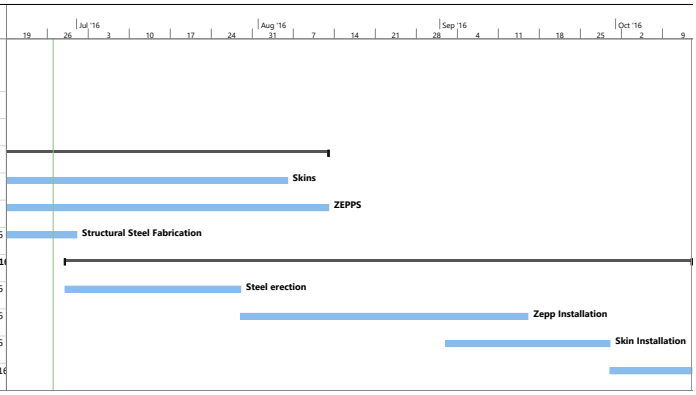


Skin Deep, Back At The Ranch



While the Chrysalis structural steel is being erected onsite, off site in Kansas City, Zahner is fabricating the Chrysalis' 12,000 square feet of aluminum skin. Seventy five (75) Zahner Engineered Profiled Panel Systems (ZEPPS) pieces of the skin, each the size of one or two cars, will be delivered to Merriweather Park at Symphony Woods on about 30 flatbed trucks. Each ZEPPS is composed of many unique pieces. Like an airplane, the aluminum trusses, anodized aluminum inner skin visible from within the structure, and the colored shingles, are held in place by thousands of rivets. The ZEPPS will be attached to the steel structure via 2,800 stainless, self tapping screws.

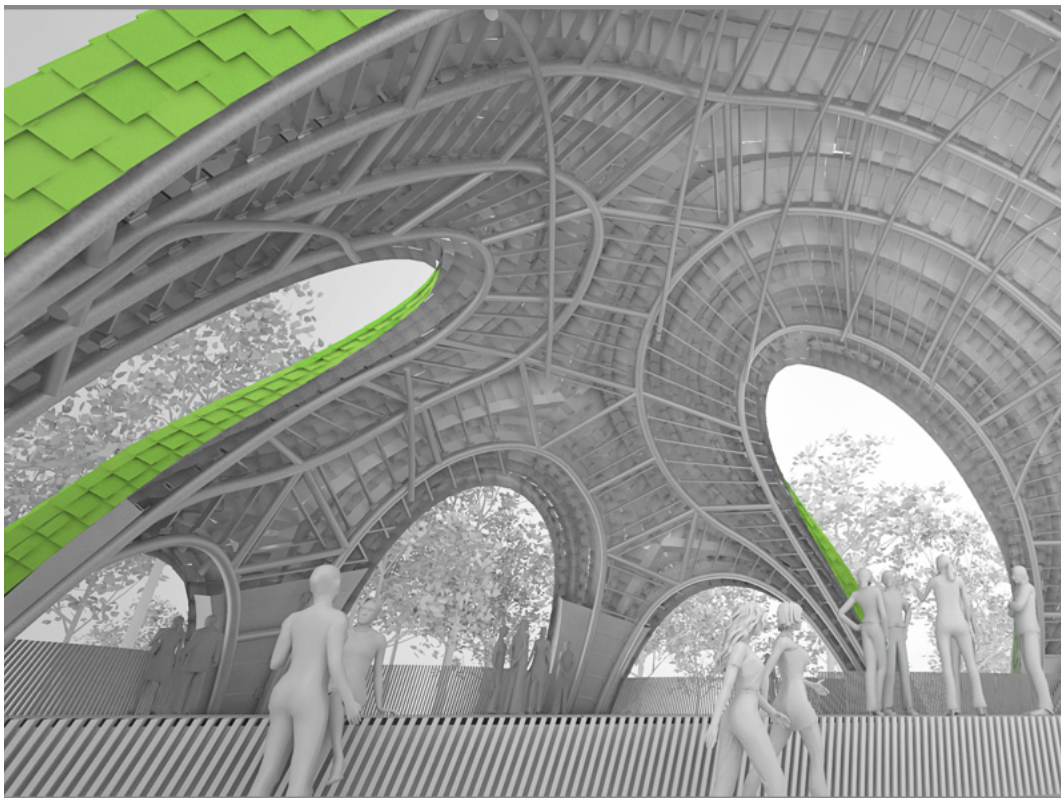
	Task Mo	Task Name	Duration	Start	Finish
1		**Design Development and Mock-ups**	**15 days**	**Mon 2/1/16**	**Fri 2/19/16**
5		**Engineering**	**40 days**	**Mon 2/8/16**	**Fri 4/1/16**
11		**Material Procurement**	**80 days**	**Mon 2/8/16**	**Fri 5/27/16**
15		**Fabrication**	**76 days**	**Fri 4/29/16**	**Fri 8/12/16**
16		Skins	10 wks	Mon 5/30/16	Fri 8/5/16
17		ZEPPS	10 wks	Mon 6/6/16	Fri 8/12/16
18		Structural Steel Fabrication	9 wks	Fri 4/29/16	Thu 6/30/16
19		**Installation of the Art**	**77 days**	**Wed 6/29/16**	**Thu 10/13/16**
20		Steel erection	4.4 wks	Wed 6/29/16	Thu 7/28/16
21		Zepp Installation	7 wks	Fri 7/29/16	Thu 9/15/16
22		Skin Installation	4 wks	Fri 9/2/16	Thu 9/29/16
23		Punch list and Demobilization	2 wks	Fri 9/30/16	Thu 10/13/16



Schedule & Budget

Nationally renowned, Maryland based Whiting-Turner Contracting Company, the General Contractor for everything but the steel and aluminum shell – including tree protection; stormwater management; site utilities; the (very complex) concrete foundation and storage area; electrical, plumbing and HVAC systems; and roads, paths and site work – will complete the one-of-a-kind building this year, and the opening of the Chrysalis will be celebrated next spring, to honor Columbia's 50th Birthday.

The project is on budget, thanks to $6.4 Million in funding from the Howard County government, authorized by the bipartisan support of the former County Executive Ken Ulman and the ongoing support of the current County Executive Allan Kittleman; and, the funding was enacted into law by unanimous Howard County Council support, each year for three consecutive fiscal years.

The State of Maryland has provided $2 Million to Merriweather Post Pavilion, which is funding paths, handicapped parking and restrooms (with 13 stalls for women) in Merriweather Park at Symphony Woods, which will be open to Park patrons.

Lastly, $1.6 Million of initial funding for the Inner Arbor Trust's approved plan for Merriweather Park at Symphony Woods was provided by Columbia Association, and additional funding comes from the Inner Arbor Trust's revenue.