February 20, 2012

FOR IMMEDIATE RELEASE

Center for Design Innovation Breaks Ground for New Facility

WINSTON-SALEM, N.C. – The Center for Design Innovation (CDI) broke ground this morning for a permanent facility to be located along Rams Drive in the South District of the Piedmont Triad Research Park.

Site preparations and construction will soon begin for the 27,000 square-foot building, with completion anticipated in fall 2013. CJMW Architecture designed the building and Samet Corporation / SRS, Inc. is responsible for construction.

“It is only fitting that Winston-Salem as the ‘City of the Arts and Innovation’ be the home for this facility of the University of North Carolina aiming to promote student learning and economic development in today’s digital technology fields,” said Michael Pulitzer, Jr., the chair of the CDI’s Advisory Board. “CDI has been able to conduct many programs from the interim location at Winston Tower, but this new building will house specially equipped facilities to support the Center’s advanced computing and imaging technologies. CDI’s founding institutional partners, the UNC School of the Arts, Winston-Salem State University and Forsyth Technical Community College, are to be credited for the support and leadership making this expansion possible.”

– more –
In addition to the groundbreaking, CDI is hosting an open house today from 2 p.m. until 5 p.m. and an Idea Exchange from 5:30 p.m. until 7 p.m. with CJMW Architecture presenting the new building designs. These events are free and open to the public and will be held at the Center’s current location, 2015, Winston Tower, 301 North Main Street in Winston-Salem.

CDI supports opportunities for students and lifelong learners; strengthens research through interdisciplinary efforts across the arts and sciences; and develops close working relationships with businesses as a means of spurring economic growth.

“CDI’s role is to create an environment for diverse collaborators to spin innovative ideas into new educational content and also into new products and services that create jobs,” said Carol Strohecker, director of the Center. “The future building will house programs based on CDI’s technologies for motion capture and rapid prototyping to support educational and research efforts, and to serve as economic drivers in business development.

“CDI can be a catalyst for growth in ideas and growth in the economy, much as the diverse collaborators in Silicon Valley have done with the computer industry,” Strohecker added. “The Center will play a key role in developing new kinds of jobs for start-ups and existing businesses. We also will help in educating the people needed to fill those jobs.”

Beyond animation for films, video games and mobile apps, motion capture technology is being used in health care, especially related to physical and occupational therapy. The techniques also support the analysis of moving or flexible machinery and the movements of athletes and other performers. The rapid prototyping work being done at CDI is already supporting the design and development of medical devices, machine parts, furnishings and other industrial and retail products. These methods bring a concept through design into a software model, ultimately yielding a product prototype from a 3-D printer.

Additionally, CDI is providing opportunities such as workshops, symposia and its signature Idea Exchange forum for people in the community to expand learning and dialogue about topics such as digital design methods, entrepreneurship and the needs of the 21st century, knowledge-based economy.

— more —
About the Center for Design Innovation
The CDI was established in 2005 as a multi-campus research center of the UNC system. The Advisory Board is appointed by the UNC Office of the President. The Center’s mission is to create an environment that supports creative thinking as a means of fostering the growth of education, research and commercial enterprise. CDI began initial operations in 2007 at an interim site in Winston Tower and is currently planning a 27,000 square foot facility to be constructed in the Piedmont Triad Research Park. CDI represents an inter-institutional partnership between Winston-Salem State University, the University of North Carolina School of the Arts and Forsyth Technical Community College. On a project basis, collaborations also include a range of individuals and organizations involved in supporting the center’s interdisciplinary agenda. Early results are posted at www.CenterforDesignInnovation.org.

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Center for Design Innovation
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<th>Forsyth Tech</th>
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Groundbreaking for CDI’s facility in the Piedmont Triad Research Park

MONDAY, FEBRUARY 20, 2012 • WIND, SNOW, RAIN OR SHINE • PROCEEDINGS TO BE WEBCAST

11:00  Gathering near the PTRP site (along the north edge at Chase Street) with remarks by campus and community leaders
12:00  CDI’s current location on the 21st floor of Winston Tower: Lunch and discussion of CDI building plans, with demonstrations of current results (running computer displays, 3D printers, hi-speed cameras, laser scanners & webcaster)
2:00  Open House at CDI for members of the public
5:30-7:00  Idea Exchange at CDI with CJMW Architecture presenting the building designs

1  11:00 @ CDI’s future site:
Rams Drive between Winston-Salem State University and Salem College

We will view the site from Chase St. in the Piedmont Triad Research Park.

2  12:00 @ CDI’s current location:
Suite 2015 Winston Tower
301 North Main Street
Winston-Salem, NC 27101
36.09815°N / 80.243839°W
Phone: 336.727.4310

Arrival and parking:

1. We will begin at 11:00 near the north edge the future site. Park on either side of Salem Avenue near Chase Street, as indicated by the red dots in the map. We will look south toward the site.

2. After some brief remarks, we’ll move to CDI in Winston Tower. Park in the lot or deck at 4th & Church Streets, as indicated by the red dashes in the map. Access via 4th Street and save your entry ticket. We’ll give you a voucher for free parking when you arrive at CDI. Enter Winston Tower through the side door on 4th Street or the front lobby on Main Street. Be sure to use the high-rise elevators that go to floor 21.
11:00 at the north edge of the future site, along Chase Street in PTRP:

Welcome
Michael E. Pulitzer, Jr., Chair of the CDI Advisory Board or Carol Strohecker, Director of CDI

On the role and importance of the Center for Design Innovation
Allen Joines, Mayor of the City of Winston-Salem
John W. Davis III, former UNC Governor and Managing Director of Deutsche Bank Alex Brown
Donald J. Reaves, Chancellor of Winston Salem State University
John Mauceri, Chancellor of the University of North Carolina School of the Arts
Gary M. Green, President of Forsyth Technical Community College
Gayle Anderson, President and CEO of the Winston-Salem Chamber of Commerce

Winston-Salem of the past, present and future welcome CDI to the community
Past: Gunsmiths from Old Salem Museums & Gardens shoot from replicas of colonial firearms.
Present: The Mayor, Chancellors, CDI Advisory Board Chair and CDI Director DIG!
Future: Students from area schools innovate the concept and act of digging.

New digs
The team at Samet Corporation / SRS, Inc. MOVE on the construction site.

12:00 at CDI, Suite 2105 Winston Tower:

Welcome and lunch
Michael E. Pulitzer, Jr., Chair of the CDI Advisory Board or Carol Strohecker, Director of CDI

Research, education, engaged service and economic development initiatives
Brenda Allen, Provost and Vice Chancellor for Academic Affairs of Winston-Salem State University
David P. Nelson, Provost of the University of North Carolina School of the Arts
Conley Winebarger, Vice President of Instructional Services of Forsyth Tech Community College
Carol Strohecker, Director of CDI

CDI program support through the building design
Owen Cooks, Associate Vice Chancellor for Facilities at Winston-Salem State University
Ron Vanard, University Architect at Winston-Salem State University
Tom Calloway, Dave Moore and Jeff Sowers, collaborators at CJMW Architecture
Carol Strohecker, Director of CDI

2:00 at CDI:

Open House
Featuring the webcaster, 3D printers, hi-speed cameras and laser scanners

5:30-7:00 at CDI:

Idea Exchange: The design of CDI's future facility
Collaborators from CJMW Architecture will describe CDI's future home.
GUIDE TO SPEAKERS at the Groundbreaking for CDI's facility in the Piedmont Triad Research Park

MONDAY, FEBRUARY 20, 2012

Mr. Michael E. Pulitzer, Jr.
Chair of the CDI Advisory Board

Dr. Carol Strohecker
Director of CDI

Mr. Allen Joines
Mayor of the City of Winston-Salem

Mr. John W. Davis III
former UNC Governor and Managing Director, Deutsche Bank
Alex Brown

Chancellor Donald J. Reaves, PhD
Winston-Salem State University

Chancellor John Mauceri
University of North Carolina School of the Arts

President Gary M. Green, PhD
Forsyth Tech Community College

Ms. Gayle Anderson
President and CEO, Winston-Salem Chamber of Commerce

Dr. Brenda Allen
Provost and Vice Chancellor for Academic Affairs, Winston-Salem State University

Dr. David P. Nelson
Provost, University of North Carolina School of the Arts

Dr. Conley Winebarger
Vice President of Instructional Services, Forsyth Tech Community College
Why CDI?

100,000 manufacturing jobs were lost in the Piedmont Triad over the last several decades, according to the Sustainable Communities Planning Project.

In 2003 the regional community identified an increasingly strong cluster of economic activity, the creative industry sector. This sort of enterprise relies on capabilities enabled by rapidly evolving computer technologies.

The community looked for a way to accelerate and broaden the growth of this economic sector. They recommended supporting a new economic strategy based on design, innovation, and advanced digital technologies.

In 2005 the State legislature responded by enabling the University of North Carolina system to create the Center for Design Innovation (CDI). The Center joins the UNC School of the Arts, Winston-Salem State University, and Forsyth Tech Community College with a wide range of industry and community collaborators.

Public-private partnerships and the link to the community college system distinguish CDI among university centers. So does the Center’s mission to innovate through the creative, iterative process of design.

Design involves much more than aesthetics. Good designers have a deep understanding of the people for whom they are creating things. Good design happens through an ongoing dialog with the people who ultimately will use the designed objects.

Good designers also have deep knowledge of the materials they work with. Whether working with paper, clay, steel, computer software, or carbon nanotubes, the designer must understand the material’s properties, how they can be changed, and how they may interrelate with other materials.

A good design center must be interdisciplinary so that the design process will include diverse perspectives and a broad base of knowledge. The process is collaborative and iterative: from an initial concept, the collaborators work through a series of attempts at realization. They assess each step along the way from their multiple perspectives, continually refining until arriving at a successful result.
This process is so effective that many businesses and educators are adopting it to innovate their own operations. They are supporting team work with open, flexible environments equipped with media and materials for hands-on experimentation and expression.

At CDI we work with technologies for "rapid prototyping" and "motion capture," both of which employ 3D software modeling. Rapid prototyping techniques support industrial designs for objects such as medical instruments, mechanical components, and furnishings. Motion capture techniques support the design of rapidly moving machine parts and therapies for elderly people, injured workers, and performers such as athletes and dancers. The results also fuel animations for movies, video games, and mobile apps.

CDI's future building in the Piedmont Triad Research Park will support these functions through areas equipped with high-speed cameras, laser scanners, and 3D printers. The building will also enable prototyping in soft materials such as textiles and fabric with electronic fibers, to create garments and other objects that respond to their surroundings. An electronics lab will support this work along with development of a wide range of new computational systems and mobile technologies.

Ultimately, CDI projects benefit the health care, biotech, education, communication, entertainment, and transportation economic sectors. The new CDI facility will be a gathering place for the community and a focal point for learning and creativity. CDI's staff and collaborators look forward to welcoming you there.
Building Fact Sheet

Size 27,000 square feet; 3 stories
Building Construction Cost $8 million
Project Schedule Grading, site utilities, parking construction - spring 2012; Design completion - fall 2012; Estimated construction completion - fall 2013
Project Directive Flexible creative space that embodies dynamism, diversity, transparency, technology and collaboration

Program Spaces
Motion Capture studio (Cube), Shop, Rapid Prototyping lab (Rap), Electronic Textiles studio (SoftRap), Design/Research/Leaming studios (Shell), 50-seat Multimedia Theater (Well), Catering Kitchen and Café (Blade), Electronics Lab (Spark), Systems Architecture and Support lab (SAS), Administrative area (Bridge)

Building Features
• The building will support interdisciplinary programs in partnership with Winston-Salem State University (WSSU), University of North Carolina School of the Arts (UNCSA) and Forsyth Tech Community College, in collaboration with businesses and members of the larger community
• The CDI building will be the first constructed in the south district of the Piedmont Triad Research Park (PTRP).
• The 4-acre site slopes gently from the north of the site towards Rams Drive at the south.
• The new CDI building is designed based on a village concept in a series of forms that wrap and enclose a plaza, fostering interactivity and maintaining the natural park-like area that surrounds it.
• The facility will be “bike friendly,” with inviting trails and a range of supports to encourage commuting by cycling.
• The Cube is CDI’s signature space, housing the Motion Capture studio and supporting areas. CDI’s “MoCap” capability is field-enabled and based on high-soeed videography, laser scanning, and a suite of software for qualitative and numerical analysis and visualization of motion data.
• The Well is CDI’s “think tank” space for mobile learning and distributed presentations, as well as more conventional gatherings and “talks.”
• The Atrium is the nexus of the building, the crossroads between the key functional spaces – the Cube (Motion Capture), the Well (Amphitheater) and the Blade (Kitchen/Cafe)
• The building is designed sustainably and is registered with the US Green Building Council’s LEED (Leadership in Energy Efficient Design) program. The building is targeted to achieve LEED Silver certification.
• Sustainable design aspects include:
  • The building is oriented on an east-west axis to maximize solar gain during the winter months.
  • Glare and passive heat gain are reduced by two key strategies: A protective overhang on the south façade that allows winter sun to enter but blocks direct summer sun, and a set of deep-set windows on the west façade.
• Designed to accommodate a green roof on part of the building to reduce heat gain
• Low-VOC materials and finishes are specified
• Recycled and regionally sourced materials are specified
• Maintaining a large amount of open space on the site
• Energy- and water-efficient systems to reduce usage by at least 30%
• Native and drought-tolerant landscaping
• Individually controlled area temperatures
• Designed to accommodate solar panels
• Electric car charging stations and bike racks

Collaborative Design Team Organizational Representatives

Center for Design Innovation (CDI)
Carol Strohecker · CDI Director, WSSU Professor, UNCSA CRO & Instructor
Richard Phillips · CDI Systems Architect
Katherine Taylor · CDI Executive Assistant
Jim Shepherd · CDI Advisory Board member
Nickolay Hristov · CDI Design Researcher, WSSU Life Sciences Assistant Professor

Winston-Salem State University (WSSU)
Scott Betz · WSSU Fine Arts
Dorothy Bethea · WSSU Health Sciences / Occupational Therapy
Owen Cooks · WSSU Associate VC for Facilities
Dinesh Singh · WSSU Life Sciences
Letitia Comish · WSSU Administration and Planning
Ron Vanard · WSSU University Architect

University of North Carolina School of the Arts (UNCSA)
Jim DeCristo · UNCSA Economic Development and External Affairs
Joseph Lopina · UNCSA Filmmaking / Animation
Jason Romney · UNCSA Design & Production
Eric Schwartz · UNCSA Dance

Forsyth Tech Community College (FT)
Herb Bums · FT Architectural & Construction Technologies / Digital Effects & Animation / Broadcast Production Technologies
Russ Read · FT National Center for the Biotechnology Workforce

Design Representatives

Architectural, Interior Design, MEP Engineering: CJMW Architecture
Tom Calloway, AIA · Principal-in-Charge
David Moore, AIA · Design Principal
Jeff Sowers, AIA, LEED AP · Project Manager
Kathleen Warner, IIDA, LEED AP · Interior Design Principal

Structural Engineering: City Structures D&P – Steve Adams, PE · Structural Engineer
Civil Engineer: Allied Design, Inc. – Steve Causey
Landscape Architecture: Lappas + Havener – Walt Havener, ASLA
Construction Manager at Risk: Samet/SRS – Ken Grube; Maurice McNeal
CDI is a multi-campus research center of the University of North Carolina system. The goal is to create and apply advanced digital technologies to benefit local and regional economic development.

The center addresses this goal through public-private partnerships, interdisciplinary research and education, and inter-institutional facilities sharing and talent pooling. Through this approach the center not only optimizes innovations but serves as a model of efficient resource utilization for higher education.

CDI is a response to a community-articulated strategy for economic recovery, focused on development of knowledge about computer technologies and associated potentials for new products and services.

The center’s main technology areas are “rapid prototyping” and “motion capture.” Rapid prototyping supports industrial designs for manufactured objects such as prosthetics, medical instruments, machine parts and furnishings. Motion data capture and analysis support therapies for elderly people, injured workers and athletes, and enable realistic 3D animations for educational media.

The rapid prototyping capability is already serving business productivity and student learning with software for 3D modeling and special printers for outputs in plaster and plastic. Development of the motion capture capability is also underway. The permanent facility will house a motion capture studio surpassing any in the State and surrounding areas.

CDI’s constituent campuses are the UNC School of the Arts, Winston-Salem State University and Forsyth Technical Community College. On a project basis the center also works with a broad range of businesses, individuals and community organizations. Collaborating small businesses are benefiting from grant-funded projects. The center has also helped to spawn new organizations offering design, production and networking services.

Though still in the start-up phase, CDI has achieved remarkable visibility. The director advises several programs of the National Science Foundation and currently is involved in a by-invitation-only NSF-sponsored initiative that indicates a new direction for funding in STEM education. CDI has gained additional visibility internationally through the principal researcher's presentations about computational biology and the director's consulting for the European Commission.

In addition to programs with the partnering schools, CDI conducts seminars and events open to the public. Community education programs offer students, design professionals, displaced workers and lifelong learners opportunities in topics such as entrepreneurship and computer design techniques.

To learn more, email <info@CenterforDesignInnovation.org>.
CDI Advisory Board

Appointed by the Office of the President of the University of North Carolina

February 2012

Ongoing members (Ex-officio):

**GENERAL ADMINISTRATION, UNIVERSITY OF NORTH CAROLINA**

TBD - Vice President for Research (formerly Dr. Steve Leath 17.09.2007 - 2011)
Dr. Courtney Thornton represents GA in the absence of the VP for Research

**CENTER FOR DESIGN INNOVATION**

Dr. Carol Strohecker - Director (17.09.2007 - present)

**UNIVERSITY OF NORTH CAROLINA SCHOOL OF THE ARTS**

Mr. John Mauceri - Chancellor (17.09.2007 - present)
Dr. David P. Nelson - Provost (01.07.2011 - present)
Mr. George Burnette - Chief Operations Officer (17.09.2007 - present)

**WINSTON-SALEM STATE UNIVERSITY**

Dr. Donald J. Reaves - Chancellor (17.09.2007 - present)
Dr. Brenda Allen - Provost and Vice Chancellor for Academic Affairs (13.11.2009 - present)
Mr. Gerald E. Hunter - Vice Chancellor of Finance & Administration (to be requested)

**FORSYTH TECHNICAL COMMUNITY COLLEGE**

Dr. Gary M. Green - President (17.09.2007 - present)
Dr. Conley Winebarger - Chief Academic Officer (13.11.2009 - present)
Ms. Rachel Desmarais - VP for Planning and Information Services (13.11.2009 - present)

**SALEM COLLEGE**

Dr. Susan E. Pauly - President (01.07.2011 - present)

Termed appointees:

Mr. Brian D. Casey - President, High Point Market Authority (17.09.2007 - 30.06.2010; 26.07.2010 - 30.06.2012)

Dr. Larry Friedlander - Professor Emeritus, Stanford University (17.09.2007 - 30.06.2010; 26.07.2010 - 30.06.2012)

Dr. Kerry M. Link - Director, Center for Biomolecular Imaging, Wake Forest University (31.10.2008 - 30.06.2011; renewed to 30.06.2012)
Ms. Peggy Low - Senior Vice President, Technology, W-S Chamber of Commerce (01.07.2011 - 30.06.2014)

Dr. Nolo Martinez - Interim director, Center for New North Carolinians; recognized by The Business Journal as one of the “Triad’s Most Influential” people (01.07.2011 - 30.06.2014)

Mr. William A. (Tony) McGee - Executive Director, StokesCORE; NCSU College of Design graduate with a rural economic development perspective (01.07.2011 - 30.06.2014)

Dr. Ajay Patel - Professor and GMAC Chair in Finance, Babcock Graduate School of Management, Wake Forest University (17.09.2007 - 30.06.2010; 26.07.2010 - 30.06.2012)

Mr. Michael E. Pulitzer, Jr. (Chair) - Co-founder, New View Tours, Inc. (17.09.2007 - 30.06.2009; renewed to 30.06.2013)

Dr. Alan Shaw - Professor, Kennesaw State University (17.09.2007 - 30.06.2009; renewed to 30.06.2011; extended to 30.06.2012)

Mr. Jim Shepherd - Educational facilities planner; member of CDI’s Chancellor-appointed Building Committee (01.07.2011 - 30.06.2014)