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LDDI Bridges

is a publication of Virginia Tech's Land Development Design Initiative

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Happy New Year from Virginia Tech and the Land Development Design Initiative! The turning of the calendar is always a time to reflect on the past year's achievements and to look for ways to improve and grow in a new year. Indeed, as LDDI celebrates a wonderfully successful fall semester, we are excited about the opportunities that 2016 holds. In under a week, the Virginia Tech campus will become abuzz with the energy that only a new semester can bring. This spring, LDDI will offer a total of three courses with a combined enrollment of more than 130 students. On January 15th, LDDI is hosting its annual

winter meeting in Ashburn. The meeting will feature presentations by student design teams, an update on the status of the LDDI program, and a series of professional speakers talking about mixed use development in the region, specifically the One Loudoun project. Meeting attendees will be awarded two PDH credits, and we are excited to catch up with our industry colleagues in Northern Virginia!

As we begin a new year, I want to bring recognition to those who make LDDI a success, notably our corporate sponsors and individual donors. I know that I speak on behalf of the LDDI Advisory Board when I extend our sincerest gratitude to those who have given of their time, energy, and resources to allow LDDI to continue to thrive in what is now its tenth year. As always, I hope you enjoy reading our quarterly newsletter, and that it keeps you engaged with our truly unique efforts at Virginia Tech. Best wishes to you and your organization for a prosperous 2016!

Dr. Randy Dymond, PE, VT LDDI Coordinator

Save the Date

by Kelly Shayne Young

With the start of the spring 2016 semester looming right around the corner, LDDI has already scheduled a number of events for the coming year that we'd like to bring to your

attention. On Wednesday, **February 17th**, LDDI will host its annual spring Career Night mixer at the Hoke House from 6-8 p.m. LDDI sponsors are invited to join us for this popular event, held on the eve of the CEE Career Fair. LDDI's Practitioner Involvement Committee is organizing an overnight field trip to Northern Virginia for **late March**, during which students will visit a number of different developments in various stages of construction. On **April 5th**, LDDI will hosts its fifth annual Design Charrette and Competition. We are always seeking local professionals to serve as judges for this event, and we'd love to have you participate! On Monday, **October 3rd**, LDDI's 501(c)3 organization, LDDI, Inc., is hosting its second golf tournament fundraiser at the Potomac Shores Golf Club. LDDI, Inc.'s first golf tournament in 2014 raised significant funds that were used to directly support LDDI objectives both inside and outside of the classroom.



A student design team competes during the spring 2015 Design Charrette and Competition.

If you are interested in participating in or learning more about any of these events, please contact Kevin Young at keyoung@vt.edu.



The construction of Capital One's new 470 foot tall corporate headquarters not only creates an attractive outdoor space for both tenants and residents, it also speaks volumes about Tysons Corner's future economic sustainability.

GORDON Lends Services to Capital One Office Park

edited by Kelly Shayne Young

In the early 2000's, GORDON assisted Capital One with the site selection, entitlement, and design for the consolidation of its Northern Virginia operations within one highly visible 14-story office building in Tyson's Corner. Now Capital One's headquarters, the 29-acre site reflects the move from suburban office design to the new vision for Tysons – a walkable, urban, mixed-use environment which blends work, home, social, and play areas. Located within ¼ mile of the recently completed McLean Metro Station, the property has been entitled for 4.97 million square feet of office, retail, hotel, and residential uses.

Construction of the new 1 million square foot Capital One Tower is currently underway. At 470 feet in height, this tower will register as the second tallest building in Virginia. New rezoning plans were filed in the fall of 2015 for the recently announced urban-style Wegmans grocery anchor below a new residential tower.

Throughout the multiple phases of development, GORDON has provided planning, civil engineering, surveying, and

landscape architecture services. The project required thorough technical analysis, including zoning issues, traffic impacts, existing infrastructure, design of new infrastructure, and regulatory issues. The site design also had to incorporate VDOT's plans for a new roadway and bridge spanning the Capital Beltway touching down on the campus. Throughout the project, low-impact development features were integrated into the streetscape, buildings, and underground garages to address new stormwater regulations; these features included urban rain gardens, bioretention facilities, pervious surfaces, and underground vaults for the re-use of stormwater for cooling towers.

GORDON's landscape architects prepared an extensive streetscape and plaza design with true 3-D renderings and video visualization services. The plaza design consists of seating and dining spaces, as well as a tiered seating wall to serve as an impromptu amphitheater. Plush landscaping and bold pavement design will create a desirable outdoor space for employees, tenants, and visitors.



Situated on 16.77 acres of previously wooded property in Anne Arundel County, MD, Dorchester View is a new residential community boasting five different styles of townhouses.

Jansen Land Consulting Helps to Bring Diverse Housing Development to Anne Arundel

edited by Kelly Shayne Young

Located in Anne Arundel County, MD near the Arundel Mills Mall, Dorchester View is a 117 townhome community situated on 16.77 acres of previously wooded property. Site development began in August 2015, and construction should commence shortly. Greg May of Jansen Land Consulting is managing the site development of the property on behalf of the project's owner, New Boston Fund.

For a relatively small- to medium-sized development, the project comprises a diverse selection of housing. Five different types of townhouses include 20' wide x 40' deep front-loaded garage units, 24' wide x 42' deep non-garage units, 24' wide x 42' deep front-loaded garage units, 20' wide x 40' deep rear-loaded garage units, and 20' wide x 34' deep non-garage walkout units.

To meet MDE (Maryland Department of Environment) requirements for new projects, Dorchester View has an assortment of ESD (environmentally sustainable development)

improvements: 21 micro-bioretention ponds, 5 bio-swales, a regenerative conveyance device (also known as a coastal plain outfall), and one large bio-retention pond (with a sand filter), all of which promote infiltration of surface runoff into the underlying ground rather than channeling the drainage offsite directly into existing waterways. Practically all of the runoff from the site is routed into these facilities, either by grading, storm drain pipes, or from flumes in the curb and gutter. Most of the micro-bioretention facilities have level spreaders located below them, which further serve to promote infiltration of surface runoff into the underlying soils. For the most part, these facilities will be installed only after the drainage areas leading to them have been fully stabilized (with a full stand of grass) so as to prevent contamination of the stone, soil, and mulch layers that will be installed within each.

Who We Are: Amanda Dritschel - AB Student Representative

Each issue of *LDDI Bridges* focuses on Advisory Board members who make LDDI happen.

Amanda earned her B.S. in civil engineering from Virginia Tech in 2014 and plans to finish her M.S. in Spring 2016.

What is your planned specialty within the land development industry?

Land development and water resources.

What attracts you to land development?

My dad, also a civil engineer, got me interested in the profession. Once I started my classes, I began to really enjoy what I was learning and the variety associated with the profession.

Please mention the highlights of your academic career?

I graduated in the top 10 of civil engineering for undergrad and was awarded the Loganathan Memorial Fellowship for my graduate studies in water resources.

What motivated you to become involved with LDDI?

I enjoyed the Intro to Land Development class, where I learned that there is not one answer to a land development project, which makes you be creative with the design. This was seen again in the design

course, and it really allows you to face a different problem every day, which is intriguing for me.

What do you think are the strengths of this program?

The program really immerses the students in what it's like to be in the land development field. The LDDI program is not only great at teaching you about the land development industry, but also putting you in touch with professionals. The professionals who get involved in the classes, both personally with the students and helping develop coursework, help make what you learn in these classes directly applicable to the internships and full-time positions the students find.

Could you please share a few of your personal hobbies and/or interests?

I love seeing new places, both near and far. I've traveled overseas 3 times, the last trip being to Ireland in 2014. It's such a cool experience to immerse yourself in another culture and learn about its history. I also love doing jigsaw puzzles and playing board games, although I don't have much time for them in graduate school.



"LDDI classes set students up to successfully transition into young professionals, which isn't always the case with other college courses."
- Amanda Dritschel, LDDI Advisory Board Student Representative

LDDI Graduates in the Industry: Jared Condon

Youngblood, Tyler & Associates Engineer-in-Training

by Kelly Shayne Young

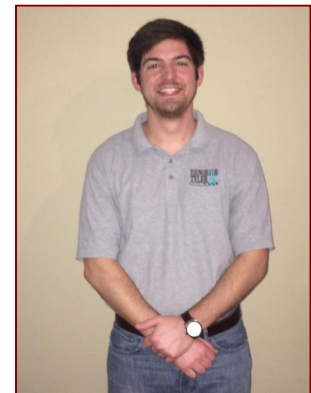
Jared Condon completed his academic career in May 2013, graduating from Virginia Tech with a B.S. in civil engineering; the following Monday, he began his professional career with Youngblood, Tyler & Associates, PC. Hailing from just outside of Richmond, VA, Jared now works right down the road in the firm's Mechanicsville, VA office, serving as an engineer-in-training.

While a student, Jared took advantage of LDDI's course offerings, namely Intro to Land Development and Land Development Design. "The design course gave me great understanding of the role the engineer plays in the land development process," he explains. "It also introduced me to Civil 3D and gave me enough command of the software that, with a little extra training, I am now designing and drafting some of my own plans." Condon feels that LDDI's curriculum is the program's greatest strength, giving students a strong foundation on which to build and launch their careers in the land development industry. He truly believes "it's easier to absorb, understand, and

remember the nuances of the land development process if you have a strong base knowledge, and the LDDI program delivers that knowledge."

Having a couple of years in the professional world under his belt, Jared has learned a few tricks of the trade that have made his transition from student to practitioner increasingly successful. Condon knows that, since he is providing a service and all of his time is billable, practical solutions that save time and money while achieving a project's goals are ideal. He has had the opportunity to hone his skills working on a range of projects, including residential and multi-use developments in Short Pump and Henrico County and the Pete Store in Richmond.

While Jared misses the flexible schedule and abundant free time that come with being a student, he still finds time to play guitar and see live shows. He enjoys hiking in the summer and snowboarding in the winter, and climbed to the top of Half Dome in Yosemite National Park in the summer of 2013.



"Students in the LDDI program should pay attention! They will come across a vast majority of what is taught in the undergraduate civil engineering curriculum at some point during their early careers." - Jared Condon— Youngblood, Tyler & Associates Engineer-in-Training

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Maser Consulting Aids in Developing Hybrid Campus for The College of New Jersey

edited by Kelly Shayne Young

Relationships between public and private entities have become increasingly more common as an innovative means for both parties to be able to afford projects that, alone, may not have been financially viable.

Utilizing the public-private partnership provision contained in the "New Jersey Economic Stimulus Act of 2009," P.L.2009, c.90, The College of New Jersey (TCNJ) partnered with The PRC Group to build a \$120 million hybrid development boasting 278,000 square feet of mixed-use space. The "Campus Town" project developed approximately 12 acres adjacent to TCNJ's Ewing campus to create a perfect interaction of space for both students and retailers.

Services provided by Maser Consulting included civil and site development, utility and traffic engineering, surveying, geotechnical engineering, planning, permitting, landscape architecture, and lighting design. The first phase included 446 new housing units for students in 2nd- and 3rd-story apartments, alleviating some of the housing pressure within the township neighborhoods. A host of name-brand eateries and retailers, including Barnes & Noble Booksellers, have opened on the ground level.

Project goals included increasing the high quality environment of the campus to boost the appeal of the College to prospective and current students, faculty, and staff; enhancing the physical appearance of the main entrance to the campus; strengthening the College-community relationship by promoting the combined usage of the development; and creating partnerships with local and regional entities.

Project amenities included housing for students, faculty, and staff; relocation of a bookstore to free up space in TCNJ's Student Center; and a new fitness center and wellness facility to augment TCNJ's wellness center, which needed to expand.

The first phase of the project was completed ahead of schedule and in time for the start of the 2015 fall semester. Phase two in 2016 will add a large-name restaurant and another 166 apartments.



Campus Town aims to boost The College of New Jersey's appeal while strengthening its relationship with the surrounding community.

Dewberry Provides Services for New Industrial Park

edited by Kelly Shayne Young



Spanning 3,500 acres adjacent to the North Carolina/Virginia border, Berry Hill is the largest industrial park in

Berry Hill Industrial Park is a new 3,500-acre industrial park in Pittsylvania County, VA that will offer large sites to industrial prospects. Jointly developed by the City of Danville and Pittsylvania County, the new park will be the largest industrial park in the Commonwealth of Virginia and the fifth largest along the East Coast. The park, which is located along the North Carolina/Virginia state line, includes 12 developable lots, the largest spanning 972 total acres with up to a 600-acre pad, and will boast full heavy industrial utilities, including water, sewer, electric, natural gas, and fiber.

Located roughly halfway between Eden, NC and Danville, VA, adjacent to two major highways, and serviced by Norfolk Southern Rail, the megasite is poised to draw labor from several metropolitan areas and be a substantial employment and investment opportunity.

Dewberry is currently providing ongoing master planning and design services for the project, including rezoning, proposed lot layouts, pad grading, rail spur layout per Norfolk Southern requirements, environmental assessments, wetland delineation and permitting, surveying, cultural resource investigations, geotechnical investigations, traffic impact analysis, and road and utility master planning and design.

Phase I development of the park includes the construction of 133 acres of graded pad area that can support approximately two million square feet of manufacturing space. This area can be easily expanded.