



The Keystone: Trends in the Architecture & Engineering Industry

 CHARTWELL

Fall 2019

Chartwell’s dedicated architecture and engineering (AE) team serves over 100 clients in this sector throughout the United States. Our team of professionals has experience with AE firms of all types and sizes and specializes in providing ownership advisory, corporate finance, transaction opinion, and valuation services.

The Keystone focuses on M&A transactions and public market valuations in the AE sector over the prior two quarters.

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Merger & Acquisition Activity - Q1 & Q2 2019

Western Region				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
6/11/2019	Acteon Group Limited	TerraSond Limited - Surveying and mapping services	Palmer, AK	Acteon Group Limited acquired TerraSond Limited on June 11, 2019. Post the acquisition, TerraSond will continue to be led by Tom Newman and his management team.
6/5/2019	NV5 Global, Inc.	Alta Environmental, Inc. - Environmental consulting, safety consulting, and project management services	Long Beach, CA	NV5 Global, Inc. acquired Alta Environmental, Inc. on June 5, 2019. The acquisition was an all-cash transaction and will be immediately accretive to NV5's earnings.
5/17/2019	RTM Engineering Consultants, LLC	asys, inc - Mechanical engineering design services	Newport Beach, CA	RTM Engineering Consultants, LLC acquired asys on May 17, 2019. asys will be operating as asys, a division of RTM. Marc Anderson, PE will continue on as Principal of the Newport Beach office location.
5/13/2019	Murraysmith, Inc.	Quincy Engineering, Inc. - Civil engineering services, surveying, and construction management	Rancho Cordova, CA	Murraysmith, Inc. acquired Quincy Engineering Inc on May 13, 2019. Pursuant to the transaction, Murraysmith and Quincy Engineering will operate under their respective names and will continue to provide high-quality engineering expertise to our clients. As part of the merger, Murraysmith President and Chief Executive Officer Chris Rayasam will serve as Chief Executive Officer of the merged entity. Quincy Engineering President and Chief Executive Officer John Quincy will serve as a vice president of the merged entity.
5/7/2019	Monitoring Solutions, Inc.	Optimal Air Testing Services, Inc. - Stack and source emission testing services	Casper, WY	Monitoring Solutions, Inc. acquired Optimal Air Testing Services Inc on May 7, 2019. Optimal President, Dan Klassen, now will be the Monitoring Solutions Regional Manager.
5/2/2019	Barr Engineering Company	Marquez Environmental Services Inc. - Environmental management consulting services	Golden, CO	Barr Engineering Company acquired Marquez Environmental Services Inc. from Lori Marquez on May 2, 2019. Under the deal, twenty of Marquez Environmental Services' employees have joined Barr.
4/30/2019	Bc Engineering Group, Inc.	Firma Design Group - Landscape architectural and civil engineering services	Santa Rosa, CA	Bc Engineering Group, Inc. acquired Firma Design Group in late April, 2019. Bc Engineering Group, Inc. and Firma Design Group has no immediate plans to close either location, one north of Coddington and one in downtown Santa Rosa. With the bolstered staff, the owners of Bc Engineering Group intend to expand geographically in the next 24 months to neighboring counties.
4/25/2019	Soundearth Strategies, Inc.	EHS-International, Inc. - Environmental consulting services	Seattle, WA	Soundearth Strategies, Inc. acquired EHS-International, Inc. on April 25, 2019.

Merger & Acquisition Activity - Q1 & Q2 2019

Western Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
4/5/2019	Mazzetti Inc.	BHE Group, Inc. - Mechanical, civil, and energy engineering consulting services	Eugene, OR	Mazzetti Inc. acquired BHEgroup, Inc. on April 5, 2019. BHEGroup merged with Mazzetti. Monica Anderson, BHEGroup President and Principal Civil Engineer, and Tim Ely, BHEGroup Vice President and Principal Mechanical Engineer, both joined Mazzetti as Principals. The combined firm has a staff of 208 and 12 locations, including a new office in Eugene, continuing to provide both Mechanical and Civil Engineering, and an expanded Portland office with the addition of Mechanical and Civil Engineering staff.
4/1/2019	Gannett Fleming, Inc.	Sage Engineers Inc. - Geotechnical and geological services for water resource infrastructure	Roseville, CA	Gannett Fleming, Inc. acquired Sage Engineers Inc. from the family on April 1, 2019.
3/7/2019	urban-gro, Inc.	Impact Engineering, Inc. - Mechanical and electrical engineering services	Castle Rock, CO	urban-gro, Inc. completed the acquisition of Impact Engineering, Inc. on March 7, 2019. As a result of the acquisition, Impact Engineering is now a wholly-owned subsidiary of urban-gro, Inc. Brian Zimmerman shall remain as the president of Impact Engineering.
3/1/2019	Perkins+Will, Inc.	Pfau Long Architecture, Ltd. - Architectural services	San Francisco, CA	Perkins+Will, Inc. acquired Pfau Long Architecture, Ltd. on March 1, 2019. The staff of 26 people of Pfau Long Architecture will join Perkins+Will's staff of 68 in its Rincon Hill studio at 2 Bryant Street. Peter Pfau and Dwight Long the founders of Pfau Long Architecture have become the design director of Perkins+Will's San Francisco studio and design principal respectively, Kami Kinkaid became the K-12 practice leader and Melanie Turner became Director of residential design. Greg Johnson, the Managing Director of Perkins+Will's San Francisco studio remains in his current position. The combined studio will use both the Pfau Long Architecture and Perkins+Will brand names during an integration period.
1/24/2019	Munselle Civil Engineering, Inc.	Rau And Associates, Inc. - Surveying, environmental, civil and structural design, and geotechnical consulting services	Ukiah, CA	Munselle Civil Engineering & Land Surveying acquired Rau And Associates, Inc. from George Rau and family this week.
1/8/2019	Alan Plummer Associates, Inc.	Franchetti Engineering, Inc. - Engineering consulting services - Reported Revenue = \$2.2 Million	Greenwood Village, CO	Alan Plummer And Associates, Inc. acquired Franchetti Engineering Inc. on January 8, 2019. The combined staff will bring Alan Plummer Associates to about 150 employees. Franchetti Engineering will retain its staff. Patrick O'Brien, President and Principal at Franchetti Engineering, will become the Area Leader of Alan Plummer Associates' Mountain West Area. Franchetti Engineering will retain its offices in Denver and Durango, CO.

Merger & Acquisition Activity - Q1 & Q2 2019

Southwestern Region				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
5/31/2019	Hunter Engineering Inc	MA Engineering Corporation - Civil engineering, surveying and mapping, and land development engineering	Phoenix, AZ	Hunter Engineering acquired JMA Engineering Corporation on May 31, 2019. JMA Founder Jay Mihalek will bring his 30 years of experience to Hunter's Scottsdale office and will retain his current clients.
5/9/2019	CONSOR Engineers, LLC	Structural Grace, Inc. - Structural engineering design, construction administration, and surveying services	Tucson, AZ	CONSOR acquired Structural Grace, Inc. on May 9, 2019. A consortium led by CIBC provided senior debt financing for the transaction. Honigman LLP provided legal counsel to CONSOR.
5/1/2019	Exacta Land Surveyors, Inc.	Windrose Land Services, Inc. - Land surveying and project management services	Houston, TX	Exacta Land Surveyors, Inc. acquired Windrose Land Services, Inc. on May 1, 2019.
4/26/2019	WorleyParsons Limited	Energy, Chemicals and Resources Business of Jacobs Engineering Group Inc. - Technical services across hydrocarbons, chemicals, and mining and minerals - Reported EBITDA = \$285.1 Million - Reported EV = \$3.3 Billion - Reported EBITDA Multiple = 11.3x	Dallas, TX	WorleyParsons Limited entered into a definitive agreement to acquire energy, chemicals and resources business ("ECR") of Jacobs Engineering Group Inc. for \$3.3 billion, transaction closed on April 26, 2019. Simultaneously with the closing of the transaction, the parties will enter into certain ancillary agreements, including a transition services agreement. The transaction includes reciprocal non-solicit restriction on key management personnel for a period of two years from completion. Jacobs Engineering will not provide certain defined Jacobs ECR services to energy, chemicals and resources clients for a period of five years from completion. WorleyParsons Chairman, Board and CEO will continue in their current roles. One Non-Executive Director from Jacobs Engineering is expected to join the Board following the successful completion of the transaction and subsequent resignation from the Board of Jacobs Engineering. WorleyParsons CFO will continue in his current role. Leadership team will be drawn from across Jacobs Engineering's ECR business and WorleyParsons.
4/15/2019	DBR Engineering Consultants, Inc.	Borunda & Associates, Inc. Consulting Engineers - Electrical engineering consulting services	El Paso, TX	DBR Engineering Consultants, Inc. acquired Borunda & Associates, Inc. Consulting Engineers from Robert Borunda on April 15, 2019. Post deal completion, Robert Borunda will run DBR's El Paso office which has seven employees.
4/8/2019	NV5 Global, Inc.	J.V. Surveying, LLC - Land surveying and mapping services	Phoenix, AZ	NV5 Global, Inc. acquired J.V. Surveying, LLC on April 8, 2019. The acquisition was an all-cash transaction and will be immediately accretive to NV5's earnings.



Merger & Acquisition Activity - Q1 & Q2 2019

Southwestern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
4/1/2019	Roeslein Alternative Energy LLC	Alternate Energy Resources Group, Inc. - Environmental engineering, construction, and consulting services	Corinth, TX	Roeslein Alternative Energy LLC acquired Alternate Energy Resources Group, Inc on April 1, 2019. Following the acquisition, AERG will be renamed Alternate Energy Resources Group, a Roeslein Alternative Energy Company, LLC, and will still be known as AERG. All of AERG's employees will become Roeslein Alternative Energy employees and will continue all operations.
2/15/2019	GSE Power Systems, Inc.	DP Engineering Ltd. Co. - Engineering and consulting for energy and power industries - Reported Enterprise Value = \$18.5 Million - Reported Revenue = \$23.3 Million - Reported Revenue Multiple = 0.79x	Fort Worth, TX	GSE Power Systems, Inc. acquired Dp Engineering Ltd. Co. from Steven L. Pellerin, Christopher A. Davenport for \$18.5 million on February 15, 2019. Under the terms of the transaction, \$13.5 million is payable at closing, subject to customary pre- and post-closing working capital adjustments plus an additional earn-out amount not to exceed \$5 million, payable upon DP Engineering satisfying certain annual adjusted EBITDA thresholds over the next two years ranging from \$2.75 million to \$4.3 million. The transaction was financed through existing delayed term loan facility. During the twelve months ending December 31, 2018, DP Engineering generated revenue of approximately \$23.3 million. GSE Systems, Inc., parent of GSE Power Systems, expects that the transaction will be immediately accretive to the adjusted earnings per share.
1/9/2019	Pape-Dawson Engineers, Inc.	Arborleaf Engineering & Surveying, Inc. - Civil engineering and surveying services	Tomball, TX	Pape-Dawson Engineers, Inc. acquired Arborleaf Engineering & Surveying Inc. on January 9, 2019. Walter Smith, President of ArborLeaf, will serve as a vice president at Pape-Dawson. Pape-Dawson will retain all of ArborLeaf's employees. The deal will expand the Pape-Dawson's local employee count to 100 from 78.
1/8/2019	Atwell, LLC	Texas Engineering Solutions, LLC - Civil engineering, land development, municipal engineering, and construction phase services	Austin, TX	Atwell, LLC acquired Texas Engineering Solutions on January 8, 2019. Texas Engineering Solutions will continue to operate as usual and retain its brand, with the expectation of transitioning fully to Atwell by mid-2019. Hank Smith and Stephen Delgado, founders of Texas Engineering Solutions will continue to lead the Austin office. The addition of the Texas Engineering Solutions team further builds on Atwell's capabilities, allowing the company to launch operations in Austin, Texas, enhance the firm's land development experience and better serve clients across the country.
1/1/2019	Wantman Group, Inc.	BIG RED DOG, Inc. - Civil, mechanical, electrical, and plumbing engineering services	Austin, TX	Wantman Group, Inc. acquired BIG RED DOG, Inc. on January 1, 2019.

Merger & Acquisition Activity - Q1 & Q2 2019

Midwestern Region				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
6/28/2019	Westwood Professional Services, Inc.	OMNNI Associates, Inc. - Civil engineering, architectural, and environmental services	Appleton, WI	Westwood Professional Services, Inc. acquired Omni Associates, Inc. on June 28, 2019. Omni will operate as-is through 2019, with integration beginning early 2020. Phil Ramlet, President and Chief Executive Officer and the rest of Omni team will continue to serve clients from their current location in Wisconsin.
6/24/2019	The Lamar Johnson Collaborative, LLC	BatesForum LLC - Architectural services	Chicago, IL	The Lamar Johnson Collaborative, LLC acquired 50% stake of BatesForum from Steve Warlick and other partners of Bates on June 24, 2019. The merger is effective immediately.
6/6/2019	NA	AEdifica Case Engineering Inc. - Engineering services - Reported Revenue = \$10.0 Million	St. Louis, MO	Darrell Case, President of AEdifica Case Engineering, Inc. acquired the remaining 50% stake in AEdifica Case Engineering, Inc. from Aedifica Inc. effective June 6, 2019. Post- acquisition, AEdifica Case Engineering Inc. name changed to Case Engineering Inc. Darrell Case is now sole owner of AEdifica Case Engineering, and Stephen Sacco remains a principal of AEdifica Case Engineering's structural engineering affiliate. Darrell Case's son, Matt Case, is AEdifica Case Engineering's manager of mechanical engineering.
4/15/2019	Sandman Structural Engineers	Structural Design Associates, Inc. - Structural engineering consulting	Champlin, MN	Sandman Structural Engineers acquired Structural Design Associates Inc on April 15, 2019.
4/1/2019	Civil & Environmental Consultants, Inc.	Roake & Associates, Inc. - Land surveying, consultant engineering, and planning services	Naperville, IL	Civil & Environmental Consultants, Inc. acquired Roake & Associates, Inc. on April 1, 2019. Pursuant to the transaction, Roake & Associates, Inc. has consolidated its operations with existing Chicago office operations of Civil & Environmental Consultants, Inc. Upon closing, the leader of Roake & Associates, Inc., Jim Caneff, will join Civil & Environmental Consultants, Inc. as a senior principal in the Civil Engineering practice. Nine staff members from Roake & Associates, Inc. have joined Civil & Environmental Consultants, Inc. To accommodate the acquisition, Civil & Environmental Consultants, Inc. has relocated its Chicago operations from Lombard, Illinois, to Naperville, Illinois and continues to be led by Vice President John Hock.
3/19/2019	CBS Squared, Inc	Fleming, Andre & Associates, Inc. - Civil engineering services	Eau Claire, WI	CBS Squared, Inc acquired Fleming, Andre & Associates, Inc. on March 19, 2019.
3/1/2019	DLZ Corporation	Phoenix Engineering, Inc. - Civil engineering services - Reported Revenue = \$5.0 Million	Waterford Township, MI	DLZ Corporation acquired Phoenix Engineering, Inc. on March 1, 2019. As part of the deal, Terry Biederman, president at Phoenix Engineering, Inc. will become vice president at DLZ, while all other Phoenix Engineering, Inc partners will move into management positions and will add 40 employees of Phoenix Engineering to DLZ.

Merger & Acquisition Activity - Q1 & Q2 2019

Midwestern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
1/18/2019	Donohue & Associates, Inc.	C2 Engineers, LLC - Civil engineering services	Danville, IL	Donohue & Associates, Inc. acquired C2 Engineers, LLC on January 18, 2019. Sam Cole, former C2 partner is the current Donohue area manager for central Illinois. The former C2 personnel are assigned to Donohue's Champaign office.
1/17/2019	LJB Inc.	Evans/Griffin, Inc. - Civil engineering and surveying services	Louisville, KY	LJB Inc. acquired Evans/Griffin from Jim Griffin on January 17, 2019. Evans/Griffin had only three full-time employees when the acquisition took place, and Jim Griffin is now working part time during the transition.
1/7/2019	Gannett Fleming, Inc.	Bowman, Barrett & Associates Inc. - Civil and structural engineering consulting services	Chicago, IL	Gannett Fleming, Inc. acquired Bowman, Barrett & Associates Inc. on January 7, 2019. Barrett & Associates Inc. now operates as a business group of Gannett Fleming. BB&A's team has worked on transportation operations, transit and rail, structures, construction management, and aviation projects across the greater Chicago area and the Midwest. In the coming year, this group will combine with the existing Gannett Fleming Chicago office to create a powerhouse team of smart mobility experts.
1/3/2019	Terracon Consultants, Inc.	St. John-Mittelhauser & Associates, Incorporated - Environmental consulting, investigation, and remediation services	Downers Grove, IL	Terracon Consultants, Inc. acquired St. John-Mittelhauser & Associates, Incorporated on January 3, 2019. The company and its 31 employees, including geologists, engineers, scientists, field professionals, data analysts and administrative staff, will continue to serve clients locally as St. John-Mittelhauser & Associates, A Terracon Company.

Northeastern Region				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
5/24/2019	Bergmann Associates, Inc.	William Taylor Architects, PLLC - Architectural design services	Syracuse, NY	Bergmann Associates, Inc. acquired William Taylor Architects PLLC on May 24, 2019. William Taylor, former President of William Taylor Architects, joined Bergmann as a Principal Architect. The William Taylor four people team will merge with Bergmann's Syracuse, New York office and will work as part of the Bergmann's northeast buildings division.
5/14/2019	Schneider Architectural Services PC	K-Arc Design Architect, PLLC - Architectural design services	Buffalo, NY	Schneider Architectural Services PC acquired K-Arc Design on May 14, 2019. The new entity formed will retain the Schneider Architectural Services corporate moniker.
5/7/2019	Republic Services, Inc.	Synergy Environmental - Environmental consulting services	Royersford, PA	Republic Services, Inc. acquired Synergy Environmental effective from May 7, 2019.

Merger & Acquisition Activity - Q1 & Q2 2019

Northeastern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
5/1/2019	WSP Global Inc.	Leach Wallace Associates, Inc. - Mechanical, electrical, and energy systems engineering design services	Elkridge, MD	WSP Global Inc. acquired Leach Wallace Associates, Inc. on May 1, 2019.
4/29/2019	Century Engineering, Inc.	Little & Associates, Inc. - Civil engineering and surveying consulting services	Towson, MD	Century Engineering, Inc. acquired Little & Associates, Inc. on April 29, 2019. Pursuant to the acquisition, Dwight Little and his staff will reside at Century Engineering, Inc.'s headquarters in Hunt Valley.
4/25/2019	KCI Technologies Inc.	Hoehn Landscape Architecture, LLC. - Landscape architecture and architecture design services	Towson, MD	KCI Technologies Inc. acquired Hoehn Landscape Architecture, LLC. on April 25, 2019. As a result, Rick Hoehn, RLA will lead KCI Technologies Inc.'s local landscape architecture and planning-based efforts as Senior Associate and practice leader out of the KCI's Sparks, Maryland headquarters.
3/31/2019	Thornton Tomasetti, Inc.	Becker Structural Engineers Inc. - Engineering consulting services	Portland, ME	Thornton Tomasetti, Inc. acquired Becker Structural Engineers Inc. at the end of March 2019. Under the transaction, Becker Structural Engineers Inc. Founder and President Paul Becker, and Vice President Todd Neal, will become senior principal and principal at Thornton Tomasetti, respectively. Becker's 27 employees will remain in its existing office at 75 York St.
3/26/2019	Barton & Loguidice, P.C.	Advanced Land and Water, Inc. - Hydrogeological and environmental consulting services	Eldersburg, MD	Barton & Loguidice, P.C. acquired Advanced Land and Water, Inc. on March 26, 2018. Mark W. Eisner, P.G. will join Barton & Loguidice as Vice President and will serve as Branch Manager of the Baltimore-area office located in Eldersburg, David L. Pielmeier joins the Barton & Loguidice team as a Managing Hydrogeologist and Amy M. Parrish, EHS, P.G., joins Barton & Loguidice team as a Managing Hydrogeologist. All nine employees of ALWI have joined the Barton & Loguidice team and continue to operate from their existing location.
3/20/2019	GenNx360 Capital Partners	Miller Environmental Group, Inc. - Environmental response and remediation services	Calverton, NY	GenNx360 Capital Partners acquired an unknown majority stake in Miller Environmental Group, Inc. from Mark Miller on March 20, 2019. Under the transaction, Mark Miller will continue as a member of Miller Environmental Group's Board of Directors and will be exiting from the day to day operations of the Company. Effective immediately, Jerry Coogan has been appointed President and Chief Executive Officer and George Wallace is Executive Vice President.



Merger & Acquisition Activity - Q1 & Q2 2019

Northeastern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
3/15/2019	Vanasse Hangen Brustlin, Inc.	The Johnson Company, Inc. - Environmental science and engineering services	Montpelier, VT	Vanasse Hangen Brustlin, Inc. acquired The Johnson Company, Inc. on March 15, 2019. Under the transaction, The Johnson Company's Glen Kirkpatrick, and Guy Vaillancourt will join Vanasse Hangen Brustlin as Principals. The Johnson Company employees in New Hampshire and Maine will join Vanasse Hangen Brustlin's Bedford and South Portland offices. Four employees from The Johnson Company will be joining Vanasse Hangen Brustlin's office in Bedford. As part of the acquisition, Vanasse Hangen Brustlin will maintain The Johnson Company's Montpelier, VT, location.
3/12/2019	CMTA, Inc.	Engineered Solutions, Inc. - Mechanical engineering, electrical engineering, and design services	Natick, MA	CMTA, Inc. acquired Engineered Solutions, Inc on March 12, 2019. As a result of the deal, Jack Nelson has been named a partner in CMTA and will continue to manage the Boston office. All Engineered Solutions employees are being retained in the acquisition.
3/4/2019	Thompson & Litton, Inc.	Stafford Consultants, Inc. - Environmental engineering services	Princeton, WV	Thompson & Litton, Inc. entered into a purchase agreement to acquire Stafford Consultants Inc end of January 2019.
2/28/2019	H2M Architects and Engineers	Wiedersum Associates Architects, PLLC - Architectural and engineering services	Hauppauge, NY	H2M Architects and Engineers acquired Wiedersum Associates Architects, PLLC on February 28, 2019. Richard (Rick) W. Wiedersum role at H2M will be in leading a K-12 studio, as well as lending a high level of assistance in the education market, teaming with our current Education Market Director, Guy Page, RA, CSI and the Deputy Market Director Saverio Belfiore, AIA, CSI.
1/25/2019	Contract Land Staff, LLC	Keystone Consultants, LLC - Surveying, mapping, and environmental consultancy services	Carnegie, PA	Contract Land Staff, LLC acquired Keystone Consultants LLC on January 25, 2019. Under the terms, Jim Joiner, President and Founder of Keystone will act as Senior Vice President of Contract Land providing leadership and cover sight for the Keystone service line throughout the northeast and its expansion west post acquisition.
1/17/2019	Natural Systems Utilities, LLC	Bennett Environmental Associates, Inc. - Environmental consulting services	Brewster, MA	Natural Systems Utilities, LLC acquired Bennett Environmental Associates, Inc. on January 17, 2019. Natural Systems Utilities will assume all of the contracts and business operations of Bennett Environmental Associates.
1/1/2019	Ramboll Group A/S	O'Brien & Gere Limited - Engineering services	Syracuse, NY	Ramboll Group A/S acquired O'Brien & Gere Limited. O'Brien & Gere became a subsidiary of Ramboll starting in January of 2019. O'Brien & Gere will be led by it's Chief Executive Officer Jim Fox as Managing Director.

Merger & Acquisition Activity - Q1 & Q2 2019

Northeastern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
1/1/2019	Delta Engineers, Architects, & Land Surveyors, DPC.	Lewis Engineering, P.C. - Mechanical, electrical and plumbing engineering services	Albany, NY	Delta Engineers, Architects & Land Surveyors, DPC ("Delta") acquired Lewis Engineering, PC on January 1, 2019. The former Lewis Engineering office at 94 New Karner Road in Albany will be relocated to the new Delta office at Mohawk Harbor in Schenectady in late January. Rodney F. Lewis will become a Principal with Delta and seven Lewis employees will join Delta.

Southeastern Region				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
6/27/2019	Schoel Engineering Co., Inc.	4Site Incorporated - Civil engineering, land surveying, and landscape architecture services	Huntsville, AL	Schoel acquired 4Site on June 27, 2019. Schoel will take over operations as of July 1, 2019 and integrate 4Site into its existing service offerings. As part of acquisition 4Site will change its name.
6/6/2019	CHA Consulting, Inc.	Wolverton & Associates, Inc. (nka:Wolverton & Associates, a CHA Company) - Engineering services	Duluth, GA	CHA Consulting, Inc. acquired Wolverton & Associates, Inc. on June 6, 2019. Wolverton will change its branding and will be known as Wolverton & Associates, a CHA Company effective immediately.
6/5/2019	Grace & Hebert Architects, Inc.	Curtis Group Architects Ltd (nka:Grace Hebert Curtis Architects) - Architectural services	Baton Rouge, LA	Grace & Hebert Architects, Inc. acquired Curtis Group Architects Ltd on June 5, 2019. Post deal completion, Curtis Group Architects Ltd will be called Grace Hebert Curtis Architects and have more than 50 employees.
6/4/2019	NV5 Global, Inc.	Page One Consultants, Inc. - Engineering consulting services	Orlando, FL	NV5 Global, Inc. acquired Page One Consultants, Inc. on June 4, 2019. The acquisition is completed with a combination of cash and stock and will be immediately accretive to NV5's earnings.
6/4/2019	Terracon Consultants, Inc.	Environmental Services, Inc. - Environmental consulting services Geotechnical & Environmental Consultants, Inc. - Environmental consulting services	Jacksonville, FL Macon, GA	Terracon Consultants, Inc. acquired both Environmental Services, Inc. and Geotechnical & Environmental Consultants, Inc. on June 4, 2019 to enhance its geographic presence and depth of services in Georgia and the Southeast. Both companies will continue to serve clients locally as Terracon subsidiaries.
5/6/2019	Goodwyn, Mills and Cawood, Inc.	Hutchinson, Moore & Rauch, LLC - Engineering, surveying and land planning services	Daphne, AL	Goodwyn, Mills and Cawood, Inc. acquired Hutchinson, Moore & Rauch, LLC on May 6, 2019. Goodwyn, Mills and Cawood, Inc. Hutchinson, Moore & Rauch, LLC's staff will be relocating to Goodwyn, Mills and Cawood, Inc's mobile office. Hutchinson, Moore & Rauch, LLC Daphne office will remain open, operating as Goodwyn, Mills and Cawood, Inc. office.

Merger & Acquisition Activity - Q1 & Q2 2019

Southeastern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
5/3/2019	Weston & Sampson, Inc.	MA Engineering Consultants, Inc. - Civil engineering, geomatics, and visualization services	Cary, NC	Weston & Sampson, Inc. acquired Ma Engineering Consultants, Inc. on May 3, 2019. Weston Sampson retained all MAEC employees who will operate under the name of Weston Sampson.
5/1/2019	American Engineers, Inc.	T.H.E. Engineers, Inc. - Structural and roadway design and environmental consulting services	Lexington, KY	American Engineers, Inc. acquired T.H.E. Engineers, Inc. on May 1, 2019. T.H.E. Engineer's employees will be absorbed by AEI. AEI will operate T.H.E. Engineers, Inc.'s Glasgow headquarters, a Louisville office on Nelson Miller Parkway as well as offices in Owensboro, Ky.; Kennesaw, Ga.; and Clarksville, Tennessee.
4/12/2019	KOMAN Government Solutions, LLC	Trinity Analysis and Development Corp. - Environmental, geological, and engineering consulting services	Shalimar, FL	KOMAN Government Solutions, LLC acquired Trinity Analysis and Development Corp. on April 12, 2019.
3/25/2019	Ardurra Group, LLC	Design South Professionals, Inc. - Architecture and engineering services	Anderson, SC	Ardurra Group, LLC acquired Design South Professionals, Inc. on March 25, 2019. Design South Professionals, Inc. will continue to operate from its office in Anderson, South Carolina post acquisition.
3/25/2019	8-Koi, Inc.	Cape Design Engineering Co. - Engineering and construction services	Cape Canaveral, FL	8-Koi, Inc. acquired Cape Design Engineering Co. from Kannan Rengarajan & Rama Kannan, and Lutfi and Peggy Mized on March 25, 2019. As part of the transaction, 8-Koi will acquire all construction equipment and staff to include engineering staff, project managers, on-site foreman and crew, in addition to the full portfolio of work being performed under federal contract. Post the transaction, Cape Design Engineering will retain its name, its Merritt Island offices, and its staff, and Lutfi Mized and Kannan Rengarajan will remain at Cape Design Engineering.
3/22/2019	NA	Finley Engineering Group, Inc. - Designing and engineering services for bridge projects	Tallahassee, FL	Colby Lindsay, Jindrich Potucek and Carmine Borea acquired unknown minority stake in Finley Engineering Group, Inc. on March 22, 2019. After the transaction Colby Lindsay, Jindrich Potucek and Carmine Borea will join Craig Finley and Jerry Pfuntner as shareholders.
3/5/2019	The Lunz Group, Inc.	WMB-ROI, Inc. - Architectural services	Lakeland, FL	The Lunz Group acquired WMB-ROI, Inc. on March 5, 2019. Post acquisition, WMB-ROI, Inc. will operate under the name The Lunz Group and will include five offices along the I-4 corridor from Dunedin to Melbourne. Steve Boyington, Chief Executive Officer and Mike Murphy, Chief Operational Officer of WMB-ROI will be retained.
3/4/2019	Thompson & Litton, Inc.	Beeson Lusk & Street, Inc. - Architectural engineering and structure design services	Johnson City, TN	Thompson & Litton, Inc. acquired Beeson Lusk & Street Inc on March 4, 2019.

Merger & Acquisition Activity - Q1 & Q2 2019

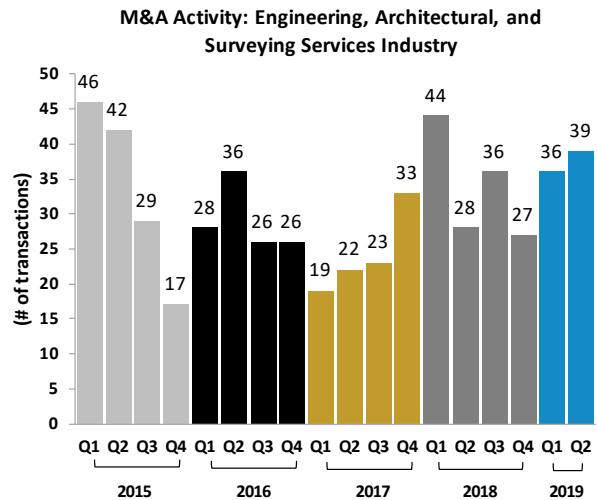
Southeastern Region (continued)				
Announce/ Close Date	Acquiror	Target	Target HQ Location	Deal Notes
2/5/2019	Zuendt Engineering LLC	Johnson-Frey-Turzak, Inc. - Civil engineering services	New Port Richey, FL	Zuendt Engineering acquired Johnson-Frey-Turzak Group on February 5, 2019. Johnson-Frey-Turzak Group office has been renamed Zuendt Engineering.
2/2/2019	Halff Associates, Inc.	Ggi, Llc (nka:Genesis Halff) - Civil engineering services	Tampa, FL	Halff Associates, Inc. acquired Ggi, Llc on February 2, 2019. As per the transaction, Genesis CE&I Services, LLC, a subsidiary of Ggi, Llc also comes under Halff Associates, Inc. Ggi, Llc will do business as Genesis Halff, and Genesis CE&I Services, LLC will do business as Genesis Halff CEI. Ggi, Llc President Mark Llewellyn will serve as Executive Vice President over Florida operations for Genesis Halff and Genesis Halff CEI.
1/28/2019	SynTerra Corporation	ECSI, LLC - Consulting, engineering, and environmental services	Lexington, KY	SynTerra Corporation acquired ECSI, LLC on January 28, 2019. The transaction also included the Lexington, KY, office of Bowser-Morner, Inc., the geotechnical capabilities of which were recently acquired by SynTerra Corporation. The combined company will operate under the SynTerra name.
1/28/2019	Croy Engineering, LLC	Tompkins Surveying and Mapping, LLC - Land surveying and engineering services	Cartersville, GA	Croy Engineering, LLC acquired Tompkins Surveying and Mapping, LLC from S. Clark Tompkins on January 28, 2019. Tompkins team will join Croy family. Croy will continue to operate an office at Tompkins existing building, located at 162 West Main Street in Cartersville.
1/22/2019	Atlas Technical Consultants, LLC	ATC Group Services LLC - Environmental consulting and industrial hygiene services	Lafayette, LA	Atlas Technical Consultants, LLC acquired ATC Group Services LLC from Bernhard Capital Partners Management LP and others on January 22, 2019. The combined company, will retain the Atlas name and be led by current Atlas Chief Executive Officer, L. Joe Boyer.
1/7/2019	KCI Technologies Inc.	Keith and Schnars, P.A. - Engineering and consulting services	Fort Lauderdale, FL	KCI Technologies Inc. acquired Keith and Schnars, P.A. on January 7, 2019. Errol Kalayci, Chief Executive Officer of Keith and Schnars, will take on the role of Corporate Counsel with KCI.
1/2/2019	McKim & Creed, Inc.	Jehle-Halstead, Inc. - Civil engineering and surveying services	Pensacola, FL	McKim & Creed, Inc. acquired Jehle-Halstead Inc. on January 2, 2019.



Merger & Acquisition Activity Observations

14 deals in the West, 11 in the Southwest, 11 in the Midwest, 17 in the Northeast, and 22 in the Southeast...that's 75 deals during the first half of 2019, the highest number in a sixth month period since Q4 2017/Q1 2018. In addition, the geographic disbursement of the deals continues to be significant. There does not currently appear to be softness in any particular geography, signifying continued economic strength throughout the U.S.

Overall, while significant consolidation continues across the industry, low interest rates and strong balance sheets will continue to drive activity. In addition, private equity is currently on pace to raise a record amount of funds in 2019, meaning even more money looking for return. Lastly, aging Baby Boomers are continuing to look for exits. Notably, the M&A activity rolls do not track ESOP transitions, which continue to be popular exit strategies for owners of AE firms of all sizes.



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AE Index Market Performance

Company Name	Index	Ticker	Enterprise Value			Equity Value		
			Value \$	LTM Change	Q4 to Q2 Change	Value \$	LTM Change	Q4 to Q2 Change
AECOM	NYSE	ACM	\$9,215	7.7%	24.6%	\$5,955	12.5%	43.7%
Fluor Corporation	NYSE	FLR	\$4,985	-27.5%	13.5%	\$4,714	-31.3%	4.1%
Jacobs Engineering Group Inc.	NYSE	JEC	\$13,785	29.9%	35.2%	\$11,528	28.1%	38.5%
SNC-Lavalin Group Inc.	TSX	SNC	\$6,461	-33.5%	-19.9%	\$3,554	-54.1%	-39.8%
WSP Global Inc.	TSX	WSP	\$7,677	21.5%	41.6%	\$5,790	6.0%	28.9%
Arcadis NV	ENXTAM	ARCAD	\$2,050	-4.1%	39.3%	\$1,651	4.6%	54.2%
WorleyParsons Limited	ASX	WOR	\$3,929	-3.7%	72.7%	\$5,364	51.4%	44.3%
Stantec Inc.	NYSE	STN	\$3,963	14.6%	32.9%	\$2,679	-8.3%	9.6%
Tetra Tech, Inc.	Nasdaq	TTEK	\$4,453	26.2%	45.4%	\$4,310	32.5%	50.4%
Cardno Limited	ASX	CDD	\$372	-21.2%	-6.5%	\$294	-35.7%	-7.9%
RPS Group plc	LSE	RPS	\$392	-53.8%	-17.2%	\$298	-59.5%	-21.4%
NV5 Global, Inc.	Nasdaq	NVEE	\$1,060	31.1%	39.2%	\$1,023	34.3%	35.4%
IBI Group Inc.	TSX	IBG	\$272	6.0%	48.0%	\$119	-28.4%	19.6%
Willdan Group, Inc.	M	WLDN	\$501	88.6%	14.0%	\$414	51.0%	8.4%
Average			\$3,944	5.1%	24.5%	\$3,183	-0.6%	17.6%
Median			\$3,929	6.0%	32.9%	\$2,679	4.6%	19.6%

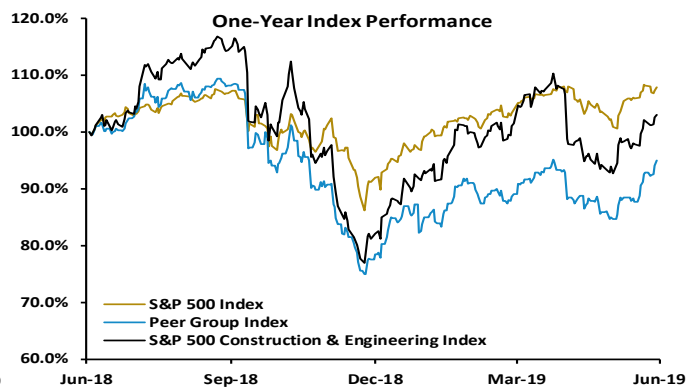
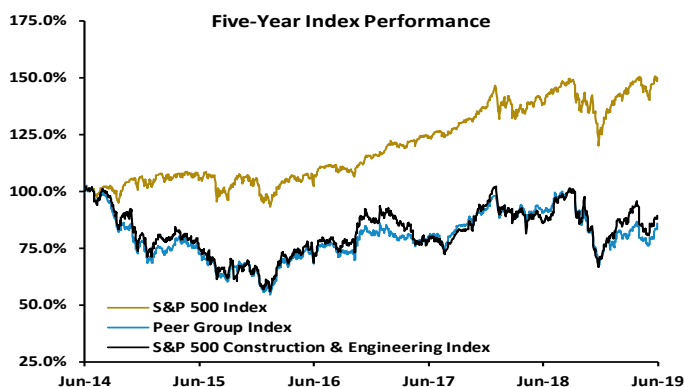
\$ in millions

LTM = Last Twelve Months

Source Data Provided by Capital IQ as of 6/30/2019

After a tumultuous December and overall drop off during the fourth quarter of 2018, the S&P 500 recovered to its year ago level by the end of June 2019. However, the Peer Group Index has lagged a bit in its recovery. While still up significantly from where it ended 2018, it has yet to approach its June 2018 level. This is primarily due to Fluor and SNC-Lavlin dragging the market weighted index down, with each seeing significant declines in equity values during the latest twelve months ended June 30. Cardno, RPS, and IBI also have had major declines in their stock values during this twelve-month time period.

That said, the first half of 2019 resulted in a significant rebound from the lows experienced at the end of 2018 for most of the firms in our index. The median increase in Enterprise Value over the past six months was 32.9% while the median equity value increase was 19.6%. SNC-Lavlin, Cardno, and RPS proved to be the primary outliers, with enterprise value declines of 19.9%, 6.5%, and 17.2%, respectively, during the past six months.



AE Index Financial Performance

Company Name	Revenue			EBITDA			EBITDA Margin	
	LTM \$	LTM Change	NTM Change	LTM \$	LTM Change	NTM Change	LTM	NTM
AECOM	\$20,531	7.4%	0.5%	\$837	12.0%	22.2%	4.1%	5.0%
Fluor Corporation	\$18,536	-5.0%	5.4%	\$742	30.6%	7.3%	4.0%	4.1%
Jacobs Engineering Group Inc.	\$16,506	68.0%	-22.5%	\$1,032	62.7%	2.9%	6.3%	8.3%
SNC-Lavalin Group Inc.	\$7,494	-2.6%	1.3%	\$335	-51.3%	138.0%	4.5%	10.5%
WSP Global Inc.	\$6,113	9.2%	NA	\$477	16.1%	NA	7.8%	NA
Arcadis NV	\$3,727	-3.6%	1.8%	\$227	-7.4%	25.2%	6.1%	7.5%
WorleyParsons Limited	\$3,566	-6.9%	70.9%	\$247	33.9%	104.7%	6.9%	8.3%
Stantec Inc.	\$2,582	7.0%	10.9%	\$273	4.3%	67.0%	10.6%	15.9%
Tetra Tech, Inc.	\$2,262	7.2%	11.6%	\$239	0.9%	24.1%	10.6%	11.7%
Cardno Limited	\$898	6.3%	-4.3%	\$23	NA	85.1%	2.5%	4.9%
RPS Group plc	\$812	-4.7%	0.9%	\$79	-8.3%	-3.4%	9.7%	9.3%
NV5 Global, Inc.	\$441	21.3%	21.0%	\$58	28.8%	24.1%	13.2%	13.5%
IBI Group Inc.	\$342	-3.3%	-15.7%	\$31	-1.0%	6.8%	9.1%	11.5%
Willdan Group, Inc.	\$309	19.2%	32.4%	\$27	27.0%	67.8%	8.8%	11.1%
Average	\$6,008	8.5%	7.2%	\$331	11.4%	45.1%	7.4%	9.7%
Median	\$3,074	6.7%	1.5%	\$243	12.0%	24.6%	7.4%	9.9%

\$ in millions

LTM = Last Twelve Months

Source Data Provided by Capital IQ as of 6/30/2019

NTM = Next Twelve Months

Revenue growth over the LTM has been solid for most firms in the index, with Jacobs having the most significant increase due to its acquisition of CH2MHill in Q3 2017 (this is the first 12-month period with that revenue included). However, Jacobs revenue is anticipated to decline 22.5% over the NTM due to the sale of its Energy, Chemicals and Resources business to WorleyParsons during the Q2 2019. The flip side of course, is that WorleyParsons revenue is anticipated to increase 70.9% over the next twelve months. So really, we're just moving the revenue around...which, interestingly enough, results in a median growth rate for the set of only 1.5% over the next twelve months!

EBITDA growth has actually been a better story during the LTM, with median growth across the index of 12.0%. In fact, all but four companies experienced growth in EBITDA during the LTM. WorleyParsons may be the most notable of the group, with a 33.9% increase in EBITDA on a 6.9% revenue decline. Over the NTM, every firm except RPS is anticipating EBITDA growth, with most expecting double-digit increases.

Overall, the median expected increase is 24.6%! Of course, with the robust EBITDA growth comes increasing margins. The median EBITDA margin over the NTM is forecast at 9.9% versus 7.4% during the LTM. One other interesting take away...Jacobs is projecting relatively flat EBITDA on a 22.5% decrease in revenue...apparently they weren't making any money on the business they sold to WorleyParsons!!!

AE Index Implied Market Multiples

Company Name	Enterprise Value / Revenue					Enterprise Value / EBITDA				
	5 Year	LTM-1	Q4 2018	LTM	NTM	5 Year	LTM-1	Q4 2018	LTM	NTM
AECOM	0.52x	0.45x	0.35x	0.45x	0.45x	10.9x	11.5x	9.2x	11.0x	9.0x
Fluor Corporation	0.33x	0.35x	0.23x	0.25x	0.24x	7.5x	12.0x	5.9x	6.3x	5.9x
Jacobs Engineering Group Inc.	0.60x	1.10x	0.65x	0.84x	1.08x	10.1x	17.0x	11.2x	13.4x	13.0x
SNC-Lavalin Group Inc.	0.80x	1.26x	0.98x	0.80x	0.79x	13.4x	14.1x	10.1x	17.9x	7.5x
WSP Global Inc.	1.02x	1.12x	0.85x	1.12x	NA	14.0x	15.3x	11.2x	14.3x	NA
Arcadis NV	0.62x	0.54x	0.44x	0.55x	0.54x	9.4x	8.5x	6.8x	9.0x	7.2x
WorleyParsons Limited	0.70x	1.09x	1.18x	1.10x	0.64x	15.0x	22.6x	18.3x	15.9x	7.8x
Stantec Inc.	1.52x	1.43x	1.13x	1.35x	1.22x	13.3x	13.2x	12.1x	12.8x	7.6x
Tetra Tech, Inc.	1.42x	1.67x	1.36x	1.97x	1.76x	13.8x	14.9x	12.8x	18.6x	15.0x
Cardno Limited	0.47x	0.54x	0.58x	0.41x	0.43x	8.4x	NA	5.9x	16.3x	8.8x
RPS Group plc	0.80x	0.99x	0.40x	0.48x	0.48x	7.1x	9.8x	8.3x	5.0x	5.1x
NV5 Global, Inc.	1.93x	2.24x	1.85x	2.33x	1.92x	16.7x	18.1x	14.8x	17.6x	14.2x
IBI Group Inc.	0.76x	0.71x	0.67x	0.61x	0.72x	7.7x	8.0x	6.3x	6.7x	6.3x
Willdan Group, Inc.	0.86x	1.05x	1.47x	1.58x	1.19x	10.9x	12.7x	15.3x	18.0x	10.7x
Average	0.88x	1.00x	0.82x	0.94x	0.91x	11.3x	13.1x	10.2x	12.7x	9.1x
Median		0.99x	0.67x	0.80x	0.76x	10.9x	12.4x	10.1x	13.4x	8.3x

Source Data Provided by Capital IQ as of 6/30/2019 LTM = Last Twelve Months
NTM = Next Twelve Months

For the most part, we tend not to put a lot of energy into analyzing the revenue multiples, as these tend to be resultants rather than value drivers for most companies in this sector and are highly variable based on growth and EBITDA margins (NV5 trading around 2.00x versus Fluor trading south of 0.30x). However, in some instances these can provide some insight into a particular company if its EBITDA multiples are particularly erratic or outside the norm of the industry. In general, our focus is on the EBITDA multiples, which is what investors primarily analyze when considering the value of a company.

In general, EBITDA multiples have remained relatively stable over the LTM. While there have certainly been fluctuations within individual companies relative to twelve and six months ago, the overall market averages and medians are fairly consistent between LTM and LTM-1. Clearly, we saw a dip at the end of Q4 2018 with the broader market decline, but multiples have rebounded with the strong EBITDA performance and significant growth expectations. In looking at the NTM multiples, there appears to be upside if the lofty EBITDA growth can be achieved...“if” being the key word! ■



