30 by 30

Engineers Canada is working to increase the representation of women within the engineering field through its *30 by 30* initiative. This initiative has a goal of raising the percentage of newly-licensed female engineers to 30 percent by the year 2030. Currently this figure is at 17.2 percent, and has held steady at this rate over the last three years. Thirty percent is universally held as the tipping point for sustainable change—reaching *30 by 30* will help drive the shift in the overall membership of the engineering profession as more and more women continue to enter the profession.

30 by 30 has received national support across all provinces and territories. Engineers Canada collaborates with engineering regulators and other stakeholders to facilitate a national vision on this issue. Whether it is in academic programs, places of employment or other areas, Engineers Canada seeks to work with or recognize organizations that make significant progress in increasing women in engineering.

Universities:
Undergraduate engineering programs are contributing to ***30 by 30*** by supporting specific initiatives to increase the percentage of women among their students. A few examples include:

University of Toronto: Women now account for 40.1 percent of first-year students in U of T engineering programs—a record for the faculty and a number that surpasses all other Ontario universities.

University of British Columbia: Nearly three out of 10 students in UBC's first-year engineering programs are women and UBC Engineering has set a goal of 50 percent female enrollment by 2020.

York University: The Lassonde School of Engineering launched a $1.5 million-challenge to become the first engineering school in Canada to reach a 50:50 gender balance.

University of New Brunswick: Engineering at UNB is adopting admission practices that encourage all qualified female applicants to enter into any engineering discipline of their choice.

Engineering regulators:
Engineering regulators have taken a number of steps to increase the number of women in the engineering profession:

Engineers Canada and each regulator has assigned a dedicated ***30 by 30*** champion.

Engineers Geoscientists Manitoba has formally adopted ***30 by 30*** as one of their organizational objectives.

Engineers Nova Scotia's annual "Spotlight on Innovation" event highlights the work and achievements of its female members.

APEGNB hands out five Inspirational STEM teacher Awards to K-12 educators that inspire the next generation of students.

APEGBC has developed a set of Human Rights & Diversity Guidelines for its membership.

Photo Credit: Engineers Canada

M-Con Products Expanding

By Brett McChesney, P.Eng., M-Con Products

In the past two and a half years, M-Con Products in Carp, Ontario has added 40,000 square feet of new production area as part of an exciting new plant expansion and renovation. The batch plant has been replaced with a state-of-the-art system which has expanded to include a third mixer and all new storage silos that increased capacity by 33%. The expansion has allowed for machinery to move to different areas for an increase in production capacity and overall efficiency. The additional production area, batching capacity and upgraded cranes have allowed for production of larger products and greater quantities of standard products, resulting in shorter completion times for big projects. Another new addition is the Smartcast robotic system, which makes true monolithic pre-benched maintenance holes, including optional precast drop structures.

City of Ottawa Construction Inspectors

In November 2016, M-Con Products welcomed five civil engineering Masters and PhD students from Queen's University for a tour of our Carp, Ontario facility. The in-depth tour was led by Plant Manager Tim Underhill and Engineering Manager Brett McChesney. The tour included a viewing of drycast pipe production and wetcast chambers, a look at the Acrowood and MBK reinforcing cage machines in action, a detailed look at the quality control facilities, and a climb up into the tower of the new batch plant to see how the ingredients are combined into quality concrete.

In December 2016, M-Con Products hosted a tour for 21 City of Ottawa Construction Inspectors as part of their four-day General Inspection Refresher Course. The comprehensive tour was very well-received and provided great insight into varied products, allowing the inspectors to directly apply what they learned to their daily on-the-job activities. Thanks to the CCPPA for the use of their Sennheiser wireless headphone public address system during the tour.

In April 2017, M-Con Products hosted a plant tour for the some of the Quality Control and site inspection staff from the Tomlinson Group. The group got to see how various products are made via both the drycast and wetcast production methods as well as a tour of the quality control lab. The group photo was taken in front of the new tipper purchased for use in safely rotating large and heavy products from the "as-poured" to "as-installed" orientation prior to shipping.

M-Con Products looks forward to continuing to effectively serve its customers' varied needs using expanded capabilities.