2019 Industry Advancement & Student Design Awards

CELEBRATING ACHIEVEMENTS IN AGGREGATE





The Community Relations Award recognizes those who have demonstrated leadership in promoting good neighbour relations, community involvement, education and industry awareness.

CBM AGGREGATES A DIVISION OF VOTORANTIM CIMENTOS

Sunderland Pit Township of Brock

Sunderland Pit's focus on community relations extends well beyond its gates. Above and beyond taking daily measures to control onsite noise, dust and traffic, the staff is invested in building strong partnerships with their Brock Township neighbours. The site hosts tours with students from the environmental technician program at nearby Sir Sandford Fleming College and welcomes the community to open houses throughout the year where people can learn more about its operations and enjoy family activities. Open communication is further encouraged through regular newsletters and the CBM company website where the public can stay informed about site activities and send their questions or concerns. On top of this, the Sunderland Pit is an active sponsor of local initiatives (e.g., the Township of Brock Annual Charity Golf Tournament) and donates resources to events like the Sunderland Lions Club's annual beach volleyball tournament.



The OSSGA Industry Advancement Awards Program recognizes a wide range of activities that contribute to a progressive image of our member aggregate producers and the aggregate industry as a whole. A key goal is to raise the bar in the industry by highlighting operations that go above and beyond what is required by legislation.

A SPECIAL THANKS TO THE JUDGES

The Industry Awards Review Panel was comprised of judges invited from outside the industry, including Michael Williams, Ducks Unlimited Canada; Erica Rumbolt, The Ontario Aggregate Resources Corporation (TOARC); Brent Armstrong, Aggregate Technical Specialist with MNRF; and Robert Koculym, Resource Management Technical Specialist Intern with MNRF. They were supported by OSSGA member Kevin Fitzpatrick of WSP Canada Inc.

The Student Design Award Review Panel was comprised of members from OSSGA's Rehabilitation and Ecology Committees: George Antoniuk, The Miller Group; Kevin Fitzpatrick, WSP Canada Inc.; Debra Walker, MHBC Planning; and Stephen May, CBM Aggregates.

WALKER AGGREGATES INC.

Duntroon Quarry Town of Duntroon

The team at Duntroon Quarry takes a multi-faceted approach to building community relationships. Onsite, it employs noise and dust mitigation practices, as well as traffic safety measures. It also keeps neighbours well informed of its operations via the Walker Industries website, newsletters and Public Liaison Committee (PLC) events. Nearby neighbours also receive personal calls prior to blasting activities. Duntroon Quarry is equally invested in the people around it. In addition to sponsoring the Stayner Siskins OHA Junior C Hockey Club, the Quarry donates stone to numerous groups, including the Collingwood Agricultural Society, Osprey Snow Hawks Snowmobile Club, Habitat for Humanity Ontario Gateway North, the Duntroon Community Hall and the Stayner Kinsmen. This is on top of contributing cash, volunteer support, and donations to organizations such as the Collingwood Salvation Army and the Clearview Stayner Food Bank.





WALKER AGGREGATES INC. McGregor Quarry Town of Amherstburg

Being a good neighbour is an ongoing priority for the team at McGregor Quarry. In addition to taking steps to control the noise, dust and traffic at its operations, the quarry hosts an annual community barbecue, site tours and an annual Public Liaison Committee (PLC) holiday wine and cheese reception. McGregor Quarry staff are also proud to host site tours for students from local schools and to open its gates to public members looking to learn more about its operations. Beyond this, the site sponsors local fundraising events and provides stone donations to organizations such as the Murchadha House For Those with Exceptional Needs, Co-An Park in McGregor, Gesstwood Camp & Education Centre, the Essex County Steam & Gas Engine Museum, and the Amherstburg Malden and Anderdon (AMA) Sportsmen's Association. More recently, McGregor Quarry employees helped organize a food drive for the Amherstburg Food Bank and succeeded in filling a pickup truck with much-needed supplies for those in need.

WALKER AGGREGATES INC.

Ridgemount Quarry Town of Fort Erie

Proof of Ridgemount Quarry's dedication to community relations can be found both on and off its Fort Erie site. Beyond taking daily measures to control the noise, dust and traffic activity within its gates, the quarry is continually donating resources and staff time to the community around it. In 2019, it donated approximately 128 tonnes of stone for Habitat for Humanity Niagara and made a cash donation to the Friends of Fort Erie's Creeks, an organization focused on protecting and improving the local waterscape. Throughout the year, Ridgemount Quarry staff also lead tours for students from nearby schools and the site is a world-renowned destination for paleontologists who visit in search of fossilized sea scorpions, which were once native to the area. Furthermore, Ridgemount Quarry has supplied fossil photos and rock samples for OSSGA's Grade 4 pilot educational program, Rocks 'N Our World. Quarry activities and updates are shared through the Walker Industries' website, newsletters and public events.





WALKER AGGREGATES INC.

Severn Quarry Township of Severn

A number of factors make Severn Quarry a welcome member of its community. Staff employ equipment covers and Explotech technology to monitor and lessen the impacts of its operations, water the quarry's roads and stockpiles regularly to mitigate dust, and follow strict traffic guidelines which are enforced by a retired police officer. Surrounding neighbours are also kept in the loop through numerous communication channels. Regarding outreach, Severn Quarry hosts yearly Public Liaison Committee (PLC) events, local model airplane club meetings and student tours. The latter included two groups of Georgian College attendees who visited the quarry in September 2019 as part of their Earth Science program. Furthermore, the quarry donates in-kind and stone donations to local organizations such as the Coldwater Legion and The Sharing Place Food Centre in Orillia.

WALKER AGGREGATES INC. Vineland Quarries and Crushed Stone Town of Lincoln

Vineland Quarries and Crushed Stone's strong community reputation is maintained through both onsite and offsite activities. The site is host to a hut for a local Scout troop, conservation lands, and bee crates for a local beekeeper. Staff also conduct tours for students and interested members of the public throughout the year. In addition, Vineland Quarries contributes to the health of the surrounding community. Last year alone it donated over 243 tonnes of stone to organizations that included the Newark Neighbours food bank, Pathstone Mental Health, and Community Care of West Niagara, and contributed both volunteers and cash to enhancing the nearby Vineland Community Park. These initiatives complement the quarry's daily measures aimed at mitigating the impact of its operations on its neighbours, and maintaining open lines of communication for public inquiries and concerns.





WALKER AGGREGATES INC. Walker Brothers Quarries

Township of Stamford (Niagara Falls)

Walker Brothers Quarries' takes pride in maintaining strong community relationships through a number of onsite initiatives as well as initiatives further afield. Within its gates, the pit monitors noise and vibrations with Explotech technology, and controls dust with regular watering of roads and stockpiles. Traffic is kept in check through strict policies and the work of a retired police officer. Within the community, Walker Brothers Ouarries donates time and resources to numerous not-for-profit initiatives. In 2019, it made a cash donation to Heartland Forest, an interactive nature site in Niagara Falls, and provided 129 tonnes of stone to the Thorold Community Activities Group and Habitat for Humanity Niagara. Site staff also lent their time to tree planting and maintenance work at a local butterfly garden. Information on these activities, along with site news and education resources, are conveyed through Walker Brothers Quarries newsletters, the Walker website, and regular Public Liaison Committee (PLC) events.

The Progressive Rehabilitation Award recognizes ongoing efforts of individual operators in progressively rehabilitating their sites in accordance with their site plans.



LAFARGE CANADA INC. - A MEMBER OF LAFARGEHOLCIM

Orillia Pit, Township of Oro-Medonte

From 2016 to 2019, the Orillia Pit has undergone a gradual rehabilitation with the intent to decommission the plant and the silt ponds and to rehabilitate the side slopes and the floor on the balance of the disturbed area of the site. Ultimately, the goal is to return the lands to agricultural use. This work has taken place over 30 hectares of land split between an area north of the haul road where aggregate was fully exhausted and an area south of the haul road. While original plans called for reforestation on the perimeter site slopes, consultations with local neighbours and the Ministry of Natural Resources and Forestry (MNRF) determined it was better to maximize the agricultural land and instead grade the side slopes to a gentler 5:1 scale. A total of 82,000 cubic metres of overburden and topsoil was removed, the soil was conditioned over a three-week period, then fertilized and seeded. The large portions of the site south of the haul road have been converted back to agriculture use and are being actively farmed.



CBM AGGREGATES - A DIVISION OF VOTORANTIM CIMENTOS

Coburn Pit, Township of Puslinch

A total of 2.25 hectares of land were restored during Coburn Pit's wetland rehabilitation project. The initiative began in October 2017 with a total of 6,000 cubic metres of overburden and 2,000 cubic metres of topsoil collected from nearby stockpiles and spread over the rehabilitation site. The land was then contoured to provide deep water, shallow water, and upland habitats. The site's side slopes were seeded with a mix of tallgrass prairie, clover, and native wildflower at a rate of 26 lbs per acre. Local students were recruited to help plant over 700 trees. Finally, wetland bundles were placed around the rehabilitated land to bolster aquatic vegetation, and over-sized rock and woody debris were positioned around the shorelines. The work was completed in January 2018.





CBM AGGREGATES - A DIVISION OF VOTORANTIM CIMENTOS

Diocese Pit, Middlesex County Township

This rehabilitation took place over 11.9 hectares of land between November 2018 and April 2019. Over 20,000 cubic metres of overburden material was imported. That material was shaped and contoured by a CAT D7 dozer to blend with the boundary of the nearby Olalondo Pit, and 20,000 cubic metres of topsoil was applied to an average minimum thickness of 250 mm. Finally, the site was seeded with a 490kg mix comprised of alfalfa, red clover, perennial ryegrass, tall fescue and timothy that was spread at a rate of 100 kg per hectare. This mix was selected to improve soil quality by increasing nitrogen and organic matter content. As of fall 2019, the rehabilitated site was in the early stages of row crop production.



CBM AGGREGATES - A DIVISION OF VOTORANTIM CIMENTOS

Olalondo Pit, Middlesex County Township

The goal of this rehabilitation work was to transform a 4.4-hectare piece of land on CBM's 6.13-hectare Olalondo pit site into an agricultural area, as well as blend the site with its surrounding environment. Work began in November 2018 with the preparation of the site floor to allow for better drainage and infiltration. In total, 50,000 cubic metres of overburden material was distributed, 12,500 cubic metres of which was applied to the west side slope, 15,000 cubic metres for the north side slope, and 22,500 cubic metres for the pit floor. After the overburden was shaped and contoured to plan, 50,000 cubic metres of topsoil was applied to a minimum average thickness of 250 mm. Finally, a 490kg seed mix of alfalfa, red clover, perennial ryegrass, tall fescue, and timothy was applied to boost soil quality and facilitate the site's agricultural objectives. Rehabilitation work concluded in April 2019 with row crop production scheduled for 2020.



CBM AGGREGATES - A DIVISION OF VOTORANTIM CIMENTOS Sunderland Pit. Township of Brock

Rehabilitation on the Sunderland Pit floor took place between September 2018 and December 2018 with the goal of grading the floor and naturalizing the site's slopes leading to nearby water features. In total, 5,000 cubic metres of overburden were used to grade the pit floor. During this time, a 3:1 slope was created towards the existing water features, and 9,000 cubic metres of material was spread over the pit floor to a minimum thickness of 100 mm. The site was then seeded with a seed mix consisting of annual rye, white clover, buckwheat, alfalfa, crown vetch, perennial rye, and tall fescue at a rate of 125 kg per hectare (600 kg total). As an added touch, crews distributed available wood debris along the pond shorelines to create future wildlife habitat.





CBM AGGREGATES - A DIVISION OF VOTORANTIM CIMENTOS

Sunderland Pit Phase 1B East, Township of Brock

This rehabilitation project narrowed in on five hectares of land within the 343.5-hectare pit site. The multi-phase initiative began in August 2019 when 4,000 cubic metres of overburden and 6,000 cubic metres of topsoil was stripped from the northeast portion of Sunderland Pit's Phase 1B rehabilitation site. The material was removed to uncover plant feed material and transferred to the adjacent southwest area to facilitate the rehabilitation. A D51 Kamatsu dozer was then used to grade and contour the land to blend it with the surrounding environment. Topsoil was then applied to a minimum average thickness of 100 mm. Finally, the area was seeded with a 350kg mix of annual rye, buckwheat, alfalfa, crown vetch, white clover and tall fescue. For phase 2, the existing pit floor was graded and sloped in a southern direction. A total of 4,000 cubic metres of topsoil was applied and seeded, at a rate of 125kg, using the same mix as the previous phase.



HAROLD SUTHERLAND CONSTRUCTION LTD., A WALKER COMPANY

Lamont Pit, Town of Saugeen Shores

While initial rehabilitation plans called for the Lamont Pit to be returned to agricultural use, an agreement with the Town of Saugeen in 2017 sparked new plans to transform the pit into public recreational lands. Seeding and sloping have taken place throughout the years, and more recently, work was done on the west portion of the pit where the town is planning to develop sports fields. Rehabilitation efforts on this portion of the pit have included placing topsoil at an average depth of 150 to 200 mm, creating side slopes with 4:1 to 3:1 grades, and seeding of the pit slopes. The pit floor has not been tilled given the proposed plans to use it as a recreational site. Harold Sutherland Construction Ltd. and site stakeholders have also agreed not to seed the pit floor since the town will re-grade and re-purpose the pit to accommodate various types of sports fields.



LAFARGE CANADA INC. - A MEMBER OF LAFARGEHOLCIM Newton Pit, Township of Champlain

Newton Pit is located five kilometres southeast from the town of Vankleek Hill where it has been operated by Lafarge Canada Inc. since 2002. Recently, Newton Pit crews rehabilitated 6.7 hectares of the pit's 8.5-hectare operating site with the goal of preparing the property for licence surrender. Notably, the pit is situated within a glacial outwash deposit which has reached nine metres above the water table. This required crews to slope the pit's face. To that end, excavators and dozers were used to shape existing material over the rehabilitation area in 2018, after which the slopes and former pit floor were left to naturally regenerate with native and natural ground cover and grasses. Since the project's completion, the area has successfully grown into a native meadow.





LAFARGE CANADA INC. - A MEMBER OF LAFARGEHOLCIM Tanner Pit, Township of Perth South

Tanner Pit has made significant progress in its rehabilitation efforts in recent years. As part of the pit's 2019 stripping campaign, 5,000 cubic metres of overburden was stripped from active areas of the site and deposited over 1.16 hectares of sloped area. Sloping then took place to meet the requirements set out by the site plan. Following this, crews applied topsoil over the finished slopes at an average thickness of three to four inches. The land was then seeded at a rate of 100 kg per hectare with a grass-legume mix designed to help prevent erosion, stabilize the slopes and promote natural re-vegetation over the long term. To date, the Tanner Pit rehabilitation project has spanned over seven hectares of the 45.9-hectare site. After 60 years of operation, the end-goal of Tanner Pit's rehabilitation is to return the former extraction areas to natural features.



R. W. TOMLINSON LIMITED Standard Pit, Township of Nepean

Since opening its gates in 1990, R.W. Tomlinson Ltd.'s Standard Pit (originally owned by Burnside Sand & Gravel Ltd.) has been used to extract 700,000 tonnes of sand per year. Work has been done throughout the years to rehabilitate the property to a pond. Recently, Standard Pit received permission from the Ministry of Natural Resources and Forestry (MNRF) to allow the site to re-vegetate naturally. This has led to the growth of grass and shrub life throughout the property. Rehabilitation work has included sloping the western limit of extraction to 3:1, applying topsoil to the site, and supporting grass and shrub life. Efforts have also been made to maintain the berm at the western setback and ensure the surrounding landscape is trim and tidy. To date, 9.6 hectares out of the pit's 10 hectares of extractable land have been rehabilitated, as per its Progressive Rehabilitation Site Plan.



The Property Enhancement Award recognizes operational best practices in a site's entrance, approach and perimeter screening, office and scalehouse areas, employee areas, plant appearance, environmental controls, truck and mobile equipment, and communicative signage. Sites that initially meet the minimum requirements in each of these sections are awarded a plaque. Site operators are then provided with an opportunity to win a "gold" bar for each section by meeting the comprehensive list of criteria for each. There are a total of seven "gold" bars that can be achieved.











Lafarge Canada Inc. A Member of LafargeHolcim

Cambridge Pit Township of North Dumfries

Two Gold Bars:

- Employee Areas
- Trucks & Mobile Equipment

Lafarge Canada Inc. A Member of LafargeHolcim

Goodwood Pit Township of Uxbridge

Three Gold Bars:

- Office & Scalehouse Areas
- Communicative Signage
- Trucks & Mobile Equipment

Lafarge Canada Inc. A Member of LafargeHolcim Mosport Pit

City of Kawartha Lakes

Two Gold Bars:

- Employee Areas
- Trucks & Mobile Equipment

R.W. Tomlinson Limited Rideau Quarry Township of Gloucester

Plaque and Seven Gold Bars:

- Entrance, Approach & Perimeter Screening
- Office & Scalehouse Areas
- Employee Areas
- Plant Appearance
- Environmental Control
- Communicative Signage
- Trucks & Mobile Equipment

R.W. Tomlinson Limited Stittsville Quarry Township of Goulbourn

Gold Bar:

Plant Appearance

STUDENT AWARDS

The Student Design Competition recognizes the most innovative and impressive designs for the rehabilitation of a former pit or quarry. This year, students were challenged to create site plans for CBM Aggregates' Ayr Pit in the Township of North Dumfries.

MEMORYSCAPE

1ST PLACE (\$3,000) School: University of Guelph Team: James Lamb, Evan Wrigley, Jingyi Yang

This first-place rehabilitation plan from the University of Guelph seeks to transform the Avr Pit into an immersive and engaging environment in which visitors can "engage with, and learn from, the past and present landscape." Memoryscape includes plans to restore and revitalize the site's natural environment, as well as create thriving habitats for a broad range of vegetation and animal life. It also seeks to connect guests to the revitalized site through an intricate trail system, lookout sites, a wildlife viewing deck, and a spacious amphitheatre. Moreover, this submission calls for the installation of a discovery centre and a transparent gallery wall that provide a glimpse into the various layers of earth that have been exposed and extracted throughout the site's operations. Overall, the team behind Memoryscape hopes to create a feature-rich environment where "transparency, innovation and community engagement with the landscape are rooted in a strong sense of place."





A BUG'S LIFE 2ND PLACE (\$2,100) School: University of Guelph Team: Justin Luth, Daisy Reid, Amanda Passero

Much like its name suggests, A Bug's Life turns a microscope on Ayr Pit's site with the goal of "encapsulating the essence of childlike curiosity and appreciation for the natural world." The student entry includes a detailed strategy for rehabilitating the site over the span of decades and creating habitats for a wide range of insects. It also includes plans to populate the site with human features such as walkways, corten steel bug-themed sculptures, an outdoor amphitheatre and an education centre - all designed to encourage engagement from both general public visitors and students from surrounding schools. Incorporating a blend of natural and built features, this submission from the University of Guelph places a renewed focus on the world's smaller inhabitants. "A Bug's *Life* further conveys a reality where the human is merely an observer and a counterpart in another being's lifecycle," says the team.

SOARING IN AYR 3RD PLACE (TIE) (\$1,000) School: University of Guelph Team: Katrine Eccles, Dana Lim, Shyla Kimmell

Things are looking up in *Soaring in Ayr*, a rehabilitation plan that suggests turning the Ayr Pit into a conservation area and bird sanctuary. Built over the course of four phases, *Soaring in Ayr* includes the creation of forests, meadows and wetlands to provide habitats for a wide range of birds (e.g., bank swallows, wood ducks, blue-winged teals) and small animals (including turtles), some of which are deemed at-risk in the Southern Ontario area. *Soaring in Ayr* also aims to raise public knowledge and awareness of bird species with the inclusion of trails, a flight pattern boardwalk, a glass boardwalk over the wetland, and circular viewing platforms designed to emulate a bird's wing rotation. Notably, the plan includes the inclusion of a Bird Sanctuary that provides workspaces and amenities for researchers, educators, volunteers and site stakeholders.





WALKING ON AYR SANCTUARY 3RD PLACE (TIE) (\$1,000) School: University of Guelph Team: Olivia Chin, Katie Garrett, Emily Moffat

Walking on Ayr Sanctuary envisions the Ayr Pit as a rehabilitated home for unwanted, neglected and abused farm animals. It is home to a dedicated sanctuary space with stables and pastures for rescued farm animals (e.g., pigs, goats, horses and donkeys, etc.), as well as a site replete with green spaces, an open marsh, a restored mixed woodlot, and shallow wetlands. Central to the *Walking on Ayr Sanctuary's* mission is promoting the responsible and loving care of all animals. To that end, the submission proposes that the site host year-round educational, awareness and recreation activities such as tours, camp programs, farmers' markets, and holiday celebrations, as well as snowshoeing and skiing to the alluringly named "Goat Yoga." The site also encourages exploration through interpretive trails that link visitors and staff to everything the sanctuary has to offer.

CARAPACE CROSSING HONOURABLE MENTION (\$900) School: Fanshawe College Team: Connor MacLeod, Aliyah Richards

Carapace Crossing seeks to give the public an opportunity to live in a net-zero community that is immersed in a rehabilitated environment. It includes plans to construct "condominium-style" accommodations surrounded by ponds, a recreational lake and interactive trails for hiking, biking or enjoying the scenery. Sustainable living is at the core of this master plan and evidenced by the inclusion of pit lakes for stormwater management, bio-swales and multiple habitats for endangered animals. As the Fanshawe College team explains, "Trying to find a balance between nature and human expansion is a growing problem in Southwestern Ontario. *Carapace Crossing*'s design [is] intended to try and resolve some of the issues keeping these realms in constant conflict."





ECO LINKS

HONOURABLE MENTION (\$900) School: Fanshawe College Team: Eric Kennes, Ryan Koraen

Outdoor leisure and eco-awareness are the names of the game in this honourable mention entry from Fanshawe College. *Eco Links* re-imagines the Ayr Pit as a golf course that will take players on a tour of the Carolinian landscape. In addition to a wealth of natural features (e.g., wetlands, ponds, deciduous forest, Savanna plantings), *Eco Links* will be host to a spacious clubhouse with a deck overlooking the revitalized site. As the team claims: "The history and the final design of the site will give the residents of Ayr a space they can relate to and give future inspiration to all Southern Ontario aggregate rehabilitation."



OSSGA's Industry Advancement Awards Program offers member aggregate producers province-wide recognition for a wide range of activities that encompass community relations, progressive rehabilitation, and property enhancement.

For more information, including submission requirements, visit: **www.ossga.com/awards.**

