



### PROGRESSIVE REHABILITATION

#### A. General

|  |                |
|--|----------------|
| 1. Area Calculations:                            |                |
| 1.1. Licence (total)                             | 261.2 hectares |
| Main Area  | 151.5 hectares |
| North Area                                       | 30.2 hectares  |
| South Area                                       | 79.4 hectares  |
| 1.2. Limit of Extraction (total)                 | 199.6 hectares |
| Main Area  | 123.6 hectares |
| North Area                                       | 16.0 hectares  |
| South Area                                       | 59.9 hectares  |
| 1.3. Final rehabilitation within licence (total) | 261.2 hectares |
| Grassland / Island                               | 7.8 hectares   |
| Grassland  | 29.3 hectares  |
| Lake   | 157.0 hectares |
| Meadow   | 7.8 hectares   |
| Wetland  | 1.6 hectares   |
| Woodland   | 46.2 hectares  |
| Existing conditions                              | 14.8 hectares  |

#### B. Phasing

- As excavation reaches the limit of extraction or maximum depth, progressive rehabilitation shall commence.
- Progressive rehabilitation shall follow the general direction and sequence of extraction identified on the plan view and described in the notes on drawing 2 of 4.
- Minor deviations in operational and rehabilitation sequence shall be permitted in order to adjust for any variable resource or market conditions.
- Each phase of extraction shall undergo progressive rehabilitation, prior to proceeding to the next phase of extraction.
- Progressive rehabilitation activities shall include sloping and grading, placement of overburden and topsoil, tree and shrub planting.

#### C. Slopes and Grading

- Final surface drainage will follow the rehabilitated contours and directional arrows shown on the plan view of this drawing.
- Cross operations in the North Area, South Area and Main Area have been completed and the rehabilitated topsoil has been established, pumping shall cease and the land allowed to flood and form the Main, North and South ponds. The Main, North and South pond water levels post-rehabilitation are predicted to reach a level of approximately -400, -399 and -393.5 masl, respectively.
- The South pond will be self contained and not require an overflow outlet.
- The Main pond overflow shall be directed via a culvert under Main Street to the North pond with its outlet invert at -400 masl.
- The North pond overflow shall be directed via the Quarry Valley Golf Course Intake pond system with its outlet invert at -399 masl.
- All rehabilitation pond levels and outlets will be passive and not require pumping.

#### D. Drainage

- Final surface drainage will follow the rehabilitated contours and directional arrows shown on the plan view of this drawing.
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- All rehabilitation pond levels and outlets will be passive and not require pumping.

#### E. Natural Environment

- Lake Shoreline - Main, North and South Area
  - The shoreline of the lakes shall be contoured, where possible to create convoluted or irregular shorelines.
  - Where sloping and excavation depths allow, shrubs or plants shall be created to increase habitat diversity.
  - Stumps and logs shall be placed along the shoreline as wildlife habitat structure. Boulders and rock rubble from the extraction shall also be used for wildlife habitat structure.
- Woodland - Main Area
  - The woodland in the Main Area, as shown on the plan view, shall be planted with tree species representative of the woodland communities that will be removed, such as sugar maple, American beech, paper birch, white pine, white cedar, balsam fir, eastern hemlock, red maple, trembling aspen, black cherry, alternate-leaved dogwood, grey dogwood, red-spider dogwood.
  - Trees shall be planted at approximately 2.5 m spacing to achieve a density of 1000 seedlings per hectare. Two years after planting the target density shall be 1200 seedlings per hectare with a survival rate of 75%. 10% plantings shall be completed in year two after planting.
- Habitat for eastern small-footed myotis and little brown myotis - Main Area
  - Rock piles shall be placed in the locations shown on the plan view to create habitat for eastern small-footed myotis. Rock piles shall vary in size and height between 1.5 m and 2 m. Coveys shall be created through sloping sides of rock varying in size from several centimetres to one meter long.
  - Bat boxes shall be installed in the same location as the rock piles to provide habitat for little brown myotis.

#### 4. Setback areas / Slopes - Main, North and South Area

- All slopes located above the final water level shall be seeded with an appropriate native, non-invasive seed mix to prevent erosion during operations.
- Nodal plantings shall be expanded naturally through seed rain.
- Along the setback to significant Woodland B, as shown on drawing 1 of 4, plant species representative of the existing woodland, such as sugar maple (Acer saccharum), American beech (Fagus grandifolia), paper birch (Betula papyrifera), American elm (Ulmus americana), white cedar (Thuja occidentalis), balsam poplar (Populus balsamifera), white pine (Pinus strobus), red maple (Acer rubrum), trembling aspen (Populus tremuloides), black cherry (Prunus serotina), alternate-leaved dogwood (Cornus alternifolia), grey dogwood (Cornus racemosa), red-spider dogwood (Cornus sericea), shall be planted.
- Along the setback to significant Woodland D, as shown on drawing 1 of 4, plant species representative of the existing woodland, such as sugar maple (Acer saccharum), American beech (Fagus grandifolia), red oak (Quercus rubra), paper birch (Betula papyrifera), black hick (Carya nigra), American elm (Ulmus americana), alternate-leaved dogwood (Cornus alternifolia), shall be planted.
- On north-facing slopes and setbacks which are expected to be cooler and moister, plant species such as white cedar (Thuja occidentalis), white spruce (Picea glauca), Norway spruce (Picea canadensis), red maple (Acer rubrum), paper birch (Betula papyrifera), American hemlock (Tsuga amurensis), shall be planted.
- On the south-facing slopes and setbacks, plant species such as white pine (Pinus strobus), white cedar (Thuja occidentalis), white spruce (Picea glauca), European larch (Larix laricina), trembling aspen (Populus tremuloides), balsam poplar (Populus balsamifera), sugar maple (Acer saccharum), black cherry (Prunus serotina), red oak (Quercus rubra), bur oak (Quercus macrocarpa), shall be planted.
- Within the setback and slope areas shrubs shall also be planted to add diversity and increase wildflower diversity, such as sparrowhawk (Viburnum sp.), nannyberry (Viburnum lentago), blackberry (Rubus sp.), blackberry (Rubiaceae), dogwood (Cornus sp.), highbush cranberry (Viburnum opulus), elderberry (Sambucus spp.), chokeberry (Prunus virginiana).

#### 5. Shoreline Wetland - Main, North and South Area

- Organic material shall be placed in shallow water areas to promote the establishment of shoreline and aquatic vegetation and to create habitat for aquatic fauna and amphibians. Stumps and trees of non-commercial value shall be included during clearing operations and used as habitat structure. Boulders and rock rubble from the extraction operation shall also be used to increase habitat diversity along the shoreline area, where possible.
- In the shoreline wetland areas, shallow emergent marsh vegetation shall be planted in the water with species that may consist of, but are not limited to, red-spider dogwood (Cornus sericea), slender yellow (Saxifraga), and herbaceous plants such as water plantain (Alisma plantago-aquatica), lake sedge (Carex lasiocarpa), swamp milkweed (Alopecurus americanus), softstem bulrush (Scirpus tabernaemontani) and common cattail (Typha latifolia).
- Turtle Habitat - North Area
  - Turtle habitat shall be created in the North Area in the location shown on the plan view.
  - The turtle habitat pond shall include sediment on the pond bottom to provide a growing medium for plants, and provide habitat for turtles (e.g., overwintering).
  - Plant emergent macrophytes shall include species such as pickereweed (Pontederica cordata), broad-leaved arrowweed (Sagittaria latifolia), water plantain species (Alisma spp.), cattail (Typha sp.), common arrowweed (Sagittaria latifolia), and greater water dock (Rumex hydrolapathrum).
  - Plant submerged macrophytes shall include species such as eelgrass (Zostera marina), broad-leaved waterweed (Elodea canadensis), slender reed (Scirpus bacillifolius), common hornwort (Ceratophyllum demersum).
  - Banking features such as logs or rocks shall be placed throughout the shallow shoreline areas.
  - Areas of suitable nesting substrate shall be constructed along or adjacent to the shoreline.
- Meadow in North Area
  - A minimum of 60.8% of the meadow shall be covered by at least three different grass species, such as poverty oatgrass (Danthonia spicata), common brome grass (Bromus inermis), common panic grass (Panicum capillare), big bluestem (Andropogon gerardi), Canada wild rye (Elymus canadensis), switch grass (Panicum virgatum), wood grass (Sorghum sp.), Virginia wild rye (Elymus virginicus).
  - At least one of the grass species shall be taller than 50 cm, which shall include at least one of the following: bottlebrush grass (3 m), big bluestem (2.0-2.5 m), Canada wild rye (1.5-2 m), switch grass (1.5 m).
  - Remaining 20.4% of the meadow shall be covered by forbs or legumes such as Canada anemone (Anemone canadensis), black-eyed susan (Rudbeckia hirta), common evening primrose (Oenothera biennis), common milkweed (Asclepias syriaca), yarrow (Achillea millefolium), New England aster (Symphyotrichum novae-angliae), and wild bergamot (Monarda didyma).
  - Meadow weed mixes shall be sown at a rate of 25kg/ha.

#### FINAL REHABILITATION

##### A. General

- All equipment shall be removed from the site. The buildings/structures located at 14200 Chatham Boulevard utilized as an office and quality control lab during operations shall remain on-site.
- No internal haul roads shall remain.
- The articulated final and use will be naturalized open spaces with the creation of lakes, vegetated shorelines, islands, vertical faces, wetlands, island forested areas, riparian plantings adjacent to the existing watercourse, nodal shrub and tree planting on upland areas, grassland meadows and specialized habitat features for bats and turtles.
- The long term average lake levels are:
  - Main - 400.0 masl
  - North - 399.0 masl
  - South - 393.5 masl

#### Site Plan Acronyms

- ARA - Aggregate Resources Act
- M.E.C.P. - Ministry of the Environment, Conservation and Parks
- MGCS - Ministry of Government and Consumer Services
- DFO - Department of Fisheries and Oceans Canada
- M.N.R.F. - Ministry of Natural Resources and Forestry
- T.S.S.A. - Technical Standards and Safety Authority
- M.T.C.S. - Ministry of Tourism, Culture and Sport
- E.C.A. - Environmental Compliance Approval
- B.M.P.F. - Best Management Practices Plan
- W.W.I.S. - Water Well Information System
- H.I.A. - Heritage Impact Assessment
- C.V.C. - Credit Valley Conservation
- M.A.S.L. - Metres above sea level
- P.T.T.W. - Permit to Take Water
- NTS - Not to Scale

Legal Description  
Part of Lots 15-18, Concession 4 WSCR and Part of Lot 16, Concession 3 WSCR  
(former geographic Township of Caledon)  
Township of Caledon  
Region of Peel

| Legend   |  |
|--|--|
| Licence Boundary   | Additional Land Owned by Licensee  |
| Limit of Extraction  | 120m Offset From Licence Boundary  |
| Contours with Elevation<br>(Metres above sea level (MASL)) | Pipeline<br>Entire Gas Inc.  |
| Watercourse<br>(Direction of flow indicated by arrows)     | Main Discharge   |
| Watercourse<br>(Direction of flow indicated by arrows)     | Secondary Discharge<br>(Discharge not to exceed surface water flow based on existing conditions) |
| Water Feature  | Fence<br>1.2 m post & wire fence unless otherwise noted<br>(Below Water)                         |
| Wooded Area  | Extraction Face  |
| Wetland<br>M.N.R.F. - Other                                | Public Road  |
| Wetland<br>M.N.R.F. - Unassessed                           | Driveway   |
| Gradual Grade / Island                                     | Railway  |
| Grassland  | Gate   |
| Woodland   | Building/Structure   |
| Wetland  | Proposed Floor Elevation<br>(Metres above sea level (MASL))                                      |
| Lake   | Proposed Final Grade<br>(Horizontal / Vertical)  |
| Meadow   | Cross Sections<br>A1   |
| Rock Pile & Bat Box Locations<br>(Approximate)             |  |

#### Legend - Cross Sections

|                                    |                                    |
|------------------------------------|------------------------------------|
| Licence Boundary                   | Existing Grade - Removed / Altered |
| Limit of Extraction                | Existing Grade - Undisturbed       |
| Existing Grade - Removed / Altered | Maximum Predicted Water Table      |
| Existing Grade - Undisturbed       | Quarry Floor                       |
| Maximum Predicted Water Table      | Backfilled                         |
| Quarry Floor                       | Lake                               |
| Backfilled                         |                                    |
| Lake                               |                                    |

#### Site Plan Amendments

| No. | Date | Description | By |
|-----|------|-------------|----|
|     |      |             |    |
|     |      |             |    |

#### Site Plan Revisions (Pre-Licensing)

| No. | Date        | Description   | By   |
|-----|-------------|---|------|
| 1   | August 2023 | Revised drawing to incorporate updated technical report recommendations | C.P. |

| No. | Date | Description | By |
|-----|------|-------------|----|
|     |      |             |    |

**MHBC** PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE  
113 COLLIER STREET, BARRE, ON, LAM 1H2 | P: 705.728.0400 | www.mhbc.ca

**MHBC Stamp**  
Brian Zeman  
Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 2(23.9) of Ontario Regulation 244/97 to prepare and certify site plans.

**MHBC Stamp**  
Christopher Poole  
Is authorized by the Ministry of Northern Development, Mines, Natural Resources and Forestry pursuant to Subsection 2(23.9) of Ontario Regulation 244/97 to prepare and certify site plans.

**Applicant**  
**cbm** CBM Aggregates a Division of St. Marys Cement Inc. (Canada)  
55 Industrial Street  
Toronto, Ontario  
M4G 3W9

**Project**  
**Caledon Pit & Quarry**  
18722 Main Street, Caledon, Ontario

**M.N.R.F. Licence Reference No.**  
626600

**Applicant's Signature**  
*[Signature]*

**Plan Scale:** 1:5000 (Arch E)

**Date:** August 2023

**Drawn By:** C.P.

**Checked By:** B.Z.

**File No.:** 8816AF

**File Name:** Rehabilitation Plan

**Drawing No.:** 4 of 4

**File Path:** N:\8816AF - C.B.M. - Caledon Quarry Drawings\Site Plan\CAD\8816AF - Site Plan.dwg