

A. General

- This site plan is prepared under the Aggregate Resources Act (ARA) for a Class A licence for a pit below the ground water table and follows the Aggregate Resources of Ontario: Site Plan Standards August 2020, specifically Existing Features for all sites (Numbers 1-26 in the standards)
- Area Calculations:

Licence Area:	17.9 hectares (44.2 acres)
Limit of Extraction:	15.4 hectares (38.1 acres)
- All references to north, south, east and west on this site plan are based on site north (not true north).
- All measurements shown are in metres unless specified otherwise.

B. References

- Topographic information compiled by GeoEpic (a Division of Aesop) was produced from aerial photography flown July 19, 2018. Mapping is produced in real world scale and coordinates (NAD83 UTM Zone 17N). Contour interval is 1m. All elevations shown are in metres above sea level (msl). Consents for existing site (Licence # 6593) from drone flight flown by Lafarge, October 2020.
- The licence boundary was established using property boundary information from Plan of Survey prepared by: H.F. Grandt Co. Ltd., Ontario Land Surveyor, October 5, 1971 [Plan 408-6692].
- Existing zoning on and within 120 metres of the licence is from the Township of Ladbroke Zoning By-law 81-19 (as amended) (Office Consolidation July 2020). The site is currently zoned Rural (RU).
- Existing designations from Township of Ladbroke Official Plan (office consolidation 2014)
- Land use information and structures identified on or within 120 metres of the site boundary was determined using July 2018 aerial imagery and 2018/2020 site visits.

C. Drainage

- There are no permanent surface water features on-site or within 120m. Surface drainage on and within 120 metres of the licence boundary is by overland flow in the directions shown by arrows on the plan view, or by infiltration. Surface water drainage in the existing Lafarge Goodwood Pit to the south is by infiltration.

D. Maximum Predicted Water Table

- The water table elevation on site ranges between 322.25 msl in the southern portion of the site (MW18-02) to 320.97 msl in the northeast portion of the site (MW18-01). The existing water table elevations are shown in each cross section on this drawing and drawings 3 of 3.

E. Site Access and Fencing

- There is an existing field access from Concession Road 3.
- Post and wire fencing (unless noted otherwise) exists in the locations shown on the plan view.

F. Aggregate Related Site Features

- There are no existing aggregate operations or features on-site such as processing areas; with stationary or portable equipment, stockpiles, recyclable materials, scrap, haul roads, fuel storage, berms or excavation faces.

G. Significant Natural Heritage Features On and Within 120m of Site

1. Site: Bank Swallow, Eastern Meadow Lark and Little Brown Myotis
2. Off-site and within 120m: Significant Woodland

H. Significant Human-made Features On and Within 120m of Site



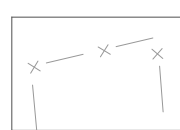
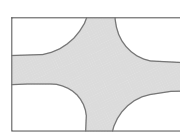
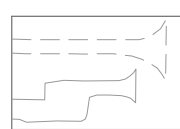


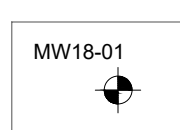

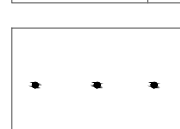
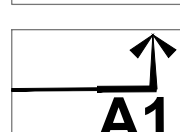


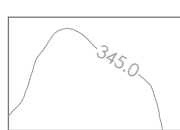

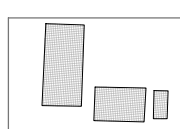

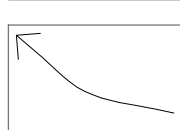
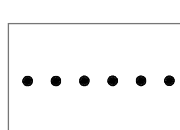

1. There are no known built heritage resources on site or within 120m of the site.
2. A Euro-Canadian Archaeological Site is located on site (Site 2 BaGt-45)

I. Cross Sections

- As shown on this page.
- Cross section locations are identified on the plan view for each drawing.

J. Technical Reports - References

- Hydrogeology: "Water Report Level 2, Lafarge Goodwood Pit Extension" June 2023 (Source: WSP)
- Maximum Predicted Water Table Elevation: "Lafarge Goodwood Pit Extension: Maximum Predicted Water Table Elevation", July 6, 2023 (Source: WSP)
- Natural Environment: "Proposed Goodwood Pit Extension Natural Environment Level 1 and 2 Technical Report", July 2023 (Source: WSP)
- Noise: "Noise Impact Study - Project: 18200.00 Goodwood Pit Extension, Township of Ladbroke, Ontario" April 16, 2020 (Source: Aercustics Engineering Ltd.)
- Archaeology: Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 3 Archaeological Assessment: Goodwood Location 1 (BaGt-45), Lafarge Goodwood Extension Property, Part of Lot 20, Concession 3, Geographic Township of Ladbroke, former Ontario County, now Regional Municipality of Durham, Ontario." Dated Jul 13, 2021, Filed with MHSTIC Toronto Office on Jul 14, 2021. MHSTIC Project Information Form Number P2356-0676-021, MHSTIC File Number O009350.
- Acoustic Assessment: "Lafarge Goodwood Pit Extension, Goodwood Pit Extension, Air Quality Assessment" April 20, 2023 (Source: RWDI Air Inc.)

Legend	
	Boundary of Area to be Licensed
	Existing Licensed Boundary GOODWOOD PIT - LICENCE #6593
	Existing Fence POST & WIRE FENCE UNLESS OTHERWISE NOTED
	Public Road
	Private Driveway/Laneway
	Existing Farm/Field Access
	Existing Domestic Well FROM WSP
	Monitoring Wells FROM WSP 2019
	Parcel Fabric (LOCATION APPROXIMATE)
	Hydro Pole
	Cross Sections SEE PAGE 1 AND 3 OF 3 FOR EXISTING AND REHABILITATED CROSS SECTIONS
	Limit of Extraction ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES
	Existing Extraction Limit GOODWOOD PIT - LICENCE #6593
	Contour and Elevation METRES ABOVE SEA LEVEL
	Spot Height Elevation METRES ABOVE SEA LEVEL
	Building/Structure LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120m ARE SHOWN ON THIS PAGE
	Existing Vegetation
	Direction of Surface Drainage
	Maximum Predicted Water Table (SEE NOTE D, ON THIS PAGE)
	Archaeological Site



LAFARGE

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Applicant's Signature _____




Chris Galway
Senior Land Manager - East Central Ontario
Lafarge Canada Inc.

Project

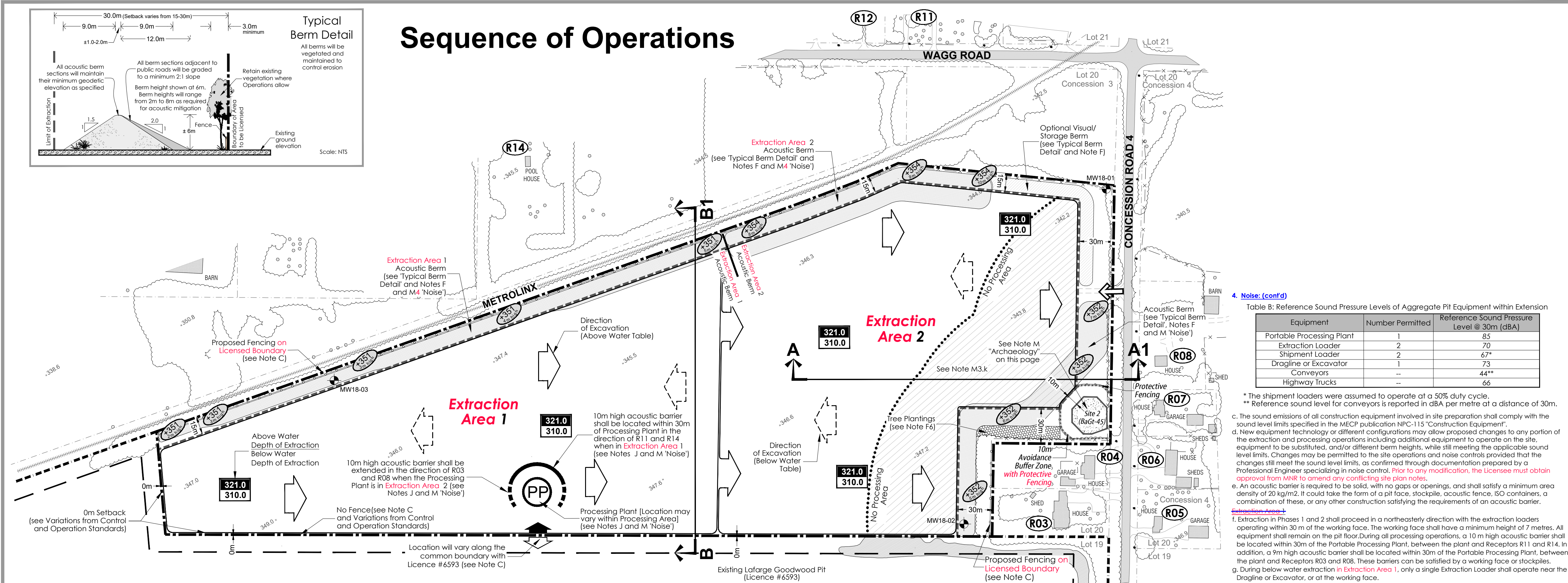
Goodwood Pit Extension

Lafarge Canada Inc.
6509 Airport Road, Mississauga Ontario L4V 1S7
Tel: (905) 738-7732

MNR Licence Reference No. 	Pre-approval review: Revisions per MNR and Agency Peer Review comments - June 2024 Revisions as per agency comments - January 2025 ARA Complete - February 2024				
Plan Scale: See Plan <div style="text-align: center;"> HORIZONTAL SCALE  25 0 25 50 75 100 METRES </div>	Plot Scale: 1:2.0 [1mm = 2.0 units] MODEL <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> Drawn By <div style="text-align: center;">D.G.S.</div> </td> <td style="width: 50%; padding: 5px;"> File No. <div style="text-align: center;">9526HC</div> </td> </tr> <tr> <td style="padding: 5px;"> Checked By <div style="text-align: center;">C.P.</div> </td> <td></td> </tr> </table>	Drawn By <div style="text-align: center;">D.G.S.</div>	File No. <div style="text-align: center;">9526HC</div>	Checked By <div style="text-align: center;">C.P.</div>	
Drawn By <div style="text-align: center;">D.G.S.</div>	File No. <div style="text-align: center;">9526HC</div>				
Checked By <div style="text-align: center;">C.P.</div>					

File Name **EXISTING FEATURES PLAN**
Drawing No. **1 OF 3**

Sequence of Operations



- | | | |
|---|--|--|
| <p>General</p> <p>1. All calculations: 17.9 hectares (44.2 acres)
 License area: 15.4 hectares (38.1 acres)</p> <p>2. No more than 1,177,000 tonnes of aggregate shall be removed from the site in any calendar year, unless License #6593 has removed aggregate in the same calendar year. Where aggregate has been removed from License #6593 in the same calendar year, the same calendar year's aggregate limit, under this license, no more than 1,177,000 tonnes of aggregate shall be removed from the two sites combined.</p> <p>3. No buildings or structures (including a scale and scale house) are proposed.</p> <p>4. The water table elevation on the southern half of the southern half of the site (MW18-02) to cross 90 m shall in the northeast portion of the site (MW18-01). The existing water table elevations are shown in each station on drawings 1 and 3 of 3.</p> <p>5. Setbacks will be shown and labelled on the Sequence of Operations Diagram on this page and page 1 of 3. There will be a 2m setback from the eastern property boundary adjacent to License #6593 (See Section N Variations from Control and Operation Standards)</p> <p>6. Agricultural production may continue in areas not under extraction.</p> <p>7. Source Water Protection: The site is located in the Lake Simcoe and Couchiching/Block River Source Protection Area. The site is not mapped as being located in a Well Head Protection Area (WHPA), but is located in a Significant Groundwater Recharge Area and a Highly Vulnerable Aquifer Area. Mitigation measures are outlined in the Hydrogeology notes under Section M Report Recommendations.</p> <p>Hours of Operation</p> <p>1. Hours of Operation are as described in the Noise notes under Section M Report recommendations.</p> <p>Site Access and Fencing</p> <p>1. The existing field access on Concession Road 4 may be utilized for monitoring and agricultural access. The access will be kept closed during hours of operation and shall be monitored and shall be maintained throughout the life of the license. Aggregate trucks shall not be permitted to access the site at this location.</p> <p>2. The site shall be accessed through the common licence boundary with existing licence #6593 and no gate shall be required (see Section N Variations from Control and Operation Standards). The location shown on the plan view is approximately only and may occur anywhere on the common licence boundary during the life of the operation.</p> <p>3. Portions of the north and west (along Metrolinx right of way) and east (Concession 4 Road) licence boundary that are not currently fenced shall be fenced with post and wire fencing, at least 1.2 metres in height, prior to site preparation commencing.</p> <p>4. Fencing shall not be required where the licence abuts existing licence #6593 (See Section N Variations from Control and Operation Standards) and in these locations, the boundary will be demarcated by 1.2m high marker posts that are visible from the road. The fence shall be maintained throughout the life of the operation. If the fence is surrendered or sold, a 1.2m high fence will be installed. All fencing shall be maintained for the life of the extraction operation.</p> <p>5. Prior to extraction activities occurring in Extraction Area 1, temporary fencing will be installed along the boundary between Extraction Area 1 and Extraction Area 2. The temporary fencing will be removed when site preparation activities are initiated in Extraction Area 2.</p> <p>Drainage</p> <p>1. Drainage of undisturbed areas will continue in the directions shown on drawing 1 of 3.</p> <p>Site Preparation</p> <p>1. Prior to site preparation, a Spills Contingency Plan shall be developed to address any potential spills from equipment on-site.</p> <p>2. Timber resources will be salvaged for use as saw logs, fence posts and fuel wood where appropriate.</p> <p>3. Non-sustainable timber, stumps and brush will be used in for locally harvested brush to be used for use in progressive rehabilitation in this licence or existing Licence #6593. Excess material not required for uses mentioned above will be burned (with applicable permits).</p> <p>4. The overburden shall be stripped and stored separately in accordance with the Sequence of Operations diagram.</p> <p>5. Topsoil and overburden shall be placed in berms or used immediately for progressive rehabilitation in this licence or adjacent Licence #6525 (see Section N Variations from Control and Operation Standards).</p> <p>6. Excess topsoil and overburden not required for use in berms or rehabilitation may be temporarily stockpiled on the pit floor or in Licence #6593. Topsoil and overburden stockpiles shall be located within the limit of extraction and remain a minimum of 30 metres from the licence boundary (except where the licence boundary abuts existing Licence #6525 or Licence #6593) and 90 metres from a property with a residential use.</p> <p>7. Temporary topsoil and overburden stockpiles which remain for more than one year shall have their slopes vegetated to control erosion. Seeding shall not be required if these stockpiles have vegetated naturally in the first year.</p> <p>F. Berms and Screening</p> <p>1. Berms shall be constructed to the elevation specified in the locations shown on the plan view prior to extraction/processing activities in each Phase. Locations and heights for all berms are provided in the Sequence of Operations diagram, this page. The heights/elevations shown are the minimum required. Overburden may be stored in separate berms throughout the extraction area.</p> <p>2. Berm side slopes shall not exceed 1:5.1 on the interior and 2:1 on the exterior facing a public road. Berms that are not adjacent to a public road shall have side slopes not exceeding 1:5.1. See "Typical Berm Detail" on this page.</p> <p>3. Berms shall not be located within three metres of the licence boundary except where adjacent to existing Licence #6593 (See Section N Variations from Control and Operation Standards).</p> <p>4. All proposed berms will be constructed in accordance with the "Typical Berm Detail" on this page, and will be vegetated and maintained to control erosion using a low maintenance grass/legume seed mixture (e.g. MTD Seed Mix) composed of Creeping Red Fescue, Perennial Ryegrass, Kentucky Bluegrass and White Clover. Temporary erosion control will be implemented as required.</p> <p>5. Berms shall be maintained throughout the operational life of the pit.</p> <p>6. Trees will be planted on the southeast side of the berm adjacent to the residences on Concession Road 4 to enhance the existing road area. These trees are to be established within one (1) year of licence issuance. Trees will be maintained and/or replaced if required, throughout the operation of the pit.</p> <p>7. Existing vegetation within the setbacks shall be maintained except where noise attenuation berms are required.</p> <p>G. Site Dewatering</p> <p>1. No existing or proposed surface water diversions or discharge has and/or will occur on the proposed extraction area. There will be no dewatering or pumping of water in the extraction area as ponds are included in the final rehabilitation plan.</p> | <p>Extraction Sequence</p> <p>1. This plan depicts a schematic operations sequence for this property. Phases do not represent any specific or equal time period. The direction of extraction will be in accordance with the Sequence of Operations diagram shown on this page. Rehabilitation will be progressive and proceed as excavation progresses. Rehabilitation will be progressive and proceed as limits of extraction (width and depth) are reached. In accordance with Note H.2.1, stripping may occur in the west half of Extraction Area 2 while extraction is occurring in Extraction Area 1.</p> <p>2. Operational Phase 1 - Above Water Extraction</p> <p>i. Site preparation in Extraction Area 1: establish fencing around the licensed boundary prior to extraction (subject to overrides); removal of vegetation where necessary; initial stripping of overburden/topsoil and construct berms as shown.</p> <p>ii. Initial set up of portable processing plant on pit floor.</p> <p>iii. Continue with stripping of overburden/topsoil as shown. Store any excess material in optional storage berms in areas within the limit of extraction or as shown on the Sequence of Operations.</p> <p>iv. Begin Extraction Area 1 above water extraction in an easterly direction and to the elevations as shown.</p> <p>v. All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.</p> <p>f. The maximum depth of Phase 1 above water extraction is 321.0 m a.s.l.</p> <p>g. All Extraction Area 2 berms will be in place prior to extraction in Extraction Area 2.</p> <p>h. Prepare Extraction Area 2 for above water and ensure all requirements in Sections C, through G, of this plan are met.</p> <p>i. When 50% of extraction is completed in Extraction Area 1, then stripping may commence in Extraction Area 2.</p> <p>3. Operational Phase 2 - Above Water Extraction</p> <p>a. Complete stripping of overburden/topsoil and construction of Extraction Area 2 berms. Excess material may be stockpiled in this licence for future rehabilitation.</p> <p>b. The portable processing plant may be relocated to Extraction Area 2.</p> <p>c. Begin Extraction Area 2 above water extraction in an easterly direction and to the elevations as shown.</p> <p>d. Begin Extraction Area 2 in an easterly direction from Extraction Area 1.</p> <p>e. All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.</p> <p>f. The maximum depth of Extraction Area 2 above water extraction is 321.0 m a.s.l.</p> <p>4. Operational Phase 3 - Below Water Extraction</p> <p>a. Begin Extraction Area 2 below water extraction in a westerly direction and to the elevations as shown.</p> <p>b. All extraction, processing and transportation equipment operating within this Phase shall comply with the restrictions identified in Noise notes under Section M Report Recommendations.</p> <p>c. The maximum depth of Extraction Area 2 below water is 310.0 m a.s.l.</p> <p>d. Initiate progressive rehabilitation of the side slope and backfill area of Extraction Area 2 along the east, north and northeast boundaries of Extraction Area 2, adjacent to Concession 4 Road.</p> <p>e. Rehabilitation of the side slope and backfill area of Extraction Area 2, adjacent to Concession 4 Road, shall be initiated prior to below water table extraction commencing in Extraction Area 2. Approximately 75% of the north side slope rehabilitation must be completed and rehabilitation of the backfilled area initiated, prior to proceeding with Operational Phase 4.</p> <p>5. Operational Phase 4 - Below Water Extraction</p> <p>a. Continue below water extraction in Extraction Area 1 from Extraction Area 2 in a westerly direction and to the elevations as shown.</p> <p>b. Initiate the progressive rehabilitation of side slope rehabilitation along north boundary of Extraction Area 1 and continue the rehabilitation of side slopes and backfill area adjacent to the properties along Concession 4 Road in Extraction Area 2.</p> <p>c. The maximum depth of Extraction Area 1 below water extraction is 310.0 m a.s.l.</p> <p>6. Operational Phase 5 (not shown)</p> <p>a. Complete any remaining extraction activities in Extraction Area 1 and 2 (e.g., under processing area and acoustic berms).</p> <p>b. Complete progressive rehabilitation of the site including completing the required backfill, side slopes, removal of berms, removal of erosion and sediment control fencing, creation of habitat features and implementation of the planting plan as outlined on Page 3.</p> <p>c. Remove all machinery and internal haul roads from site.</p> <p>Extraction Details</p> <p>1. The rate of extraction is as shown on the plan view. Extraction will occur in a maximum of 3 lifts (2 lifts above the water table and 1 lift below the water table) through the two phases as shown on the Sequence of Operations Diagram on this page and in accordance with the Ministry of Labour requirements. The maximum lift height will be 8m. Below water extraction will occur through the use of a dragline or excavator. The proposed pit floor is to be located at an elevation of 310.0 m a.s.l. or 35 m to 39 m below the existing ground surface. The proposed pit is to be on an extension of the existing Lafarge pit to the south and west.</p> <p>2. Aggregate stockpiles will be located on the pit floor (interim and final elevations) and will move throughout the life of the operation. The stockpiles will be located within 30m of the boundary between the two licence areas. The stockpiles shall be located within 30m of the boundary with Licence #6593, as outlined in the Variations from Control and Operation Standards table on this page.</p> <p>3. Internal haul road locations will vary as extraction progresses and will be located on the pit floor.</p> <p>J. Equipment and Processing</p> <p>1. The equipment used on site for aggregate operations is listed in Note M Report Recommendations 'Noise', Table B. Any equipment related to the ongoing agricultural use of the site is also permitted.</p> <p>2. All processing equipment, crusher and screening, shall be located on the noise controls and be located in close proximity to the extraction face in these Phases in order to maximize acoustic shielding. Within this area, the processing equipment shall remain a minimum of 30 metres from the licence boundary (except where the licence boundary abuts existing Licence #6525 or Licence #6593) and 90 metres from a property with a residential use.</p> <p>3. No permanent processing areas are proposed on site. Portable processing equipment, crushing and screening may be used on site and will be located below grade on the pit floor adjacent to the active pit face. All processing equipment is subject to applicable permitting under MOE Environmental Compliance Approvals. See Note M 'Noise' and Sequence of Operations diagram for location of processing plant and limit of No Processing Areas.</p> <p>4. Berms that encroach within the limit of extraction shall be removed, and the underlying aggregate may be extracted as part of the final extraction/rehabilitation of the site. If berms are removed, they shall be replaced with a suitable barrier as required by notes #44-46 and 1.</p> <p>K. Fuel Storage</p> <p>1. No fuel or associated products will be stored on site. Mobile fuelling will occur in accordance with the Gasoline Handling Act, as amended, the Gasoline Handling Code and regulations, as amended, and Liquid Fuels Handling Code.</p> <p>L. Scrap and Recycling</p> <p>1. There will be no on-site scrap storage. Temporary scrap storage will be located within the scrap storage area in the existing pit (Licence #6593) and will be removed on an on-going basis. No recycling is proposed.</p> | <p>M. Report Recommendations</p> <p>1. Hydrogeology: "Water Report Level 2, Lafarge Goodwood Pit Extension" June 2023 (Source: WSP)</p> <p>a. A groundwater and surface water monitoring shall continue through Operations. The following tasks shall be carried out:</p> <p>i. Monthly manual groundwater level monitoring at the three on-site monitoring wells.</p> <p>ii. The three on-site monitoring wells shall be equipped with automated pressure transducers with data loggers, a minimum of one year prior to extraction below the water table in order to provide a continuous record of groundwater levels.</p> <p>iii. Annual groundwater quality sampling of the on-site wells shall be completed for general chemistry, metals, bacteria, petroleo hydrocarbons and volatile organic compounds.</p> <p>iv. Annual surface water sampling of the pit pond shall be completed during the period of below water table extraction for general chemistry, metals, bacteria, petroleum, hydrocarbons and volatile organic compounds.</p> <p>v. If landowner consent is provided, the following private wells shall be included in the monthly groundwater monitoring and annual groundwater sampling program: 4809, 4639, 4709, 4840 and 4860 Concession Road 4.</p> <p>2. The Site domestic well will be decommissioned per O.Reg. 703 by a licensed well contractor either prior to extraction or at such time that extraction encroaches on the well location.</p> <p>3. To address any complaints from residents concerning the impact of the pit operation on their domestic water supply, the following Well Interference Complaint Procedure shall be in place for the following residential wells: 4809, 4639, 4709, 4840, 4860 Concession Road 4.</p> <p>a. Owners of the domestic wells experiencing</p> |
|---|--|--|

Legal Description

PART OF LOT 20, CONCESSION 3
Township of Uxbridge, Region of Durham

Legend

Boundary of Area to be Licensed

Limit of Extraction
ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES

Existing Fence
POST & WIRE FENCE UNLESS OTHERWISE NOTED

Spot Height Elevation
METRES ABOVE SEA LEVEL

Building/Structure
LOCATION AND USE FOR BUILDINGS ON-SITE AND WITHIN 120m ARE SHOWN ON THIS PAGE

Existing Vegetation

Gated Farm/Field Access
NO AGGREGATE HAULAGE

Monitoring Wells
FROM WSP 2019

Existing Berm

Parcel Fabric
(LOCATION APPROXIMATE)

Archaeological Site

Archaeological Site Avoidance Buffer Zone with Protective Fencing

Tree Plantings
ALSO SEE NOTE F7

Existing Licensed Boundary
GOODWOOD PIT - LICENCE #6593

Existing Extraction Limit
GOODWOOD PIT - LICENCE #6593

Operational Entrance
NO GATE (SEE NOTE C2 AND VARIATIONS FROM CONTROL AND OPERATIONS STANDARDS TABLE)

Direction of Excavation (Above Water)
REFER TO NOTES (THIS PAGE) FOR ADDITIONAL DETAILS

Direction of Excavation (Below Water)
REFER TO NOTES (THIS PAGE) FOR ADDITIONAL DETAILS

Proposed Fence
1.2m HIGH POST & WIRE FENCE UNLESS OTHERWISE NOTED

Elevation
ABOVE WATER DEPTH OF EXTRACTION
MAXIMUM DEPTH OF BELOW WATER EXTRACTION/PIT FLOOR (metres)

Noise Receptor
ALSO SEE NOTE M3 'NOISE' FOR ADDITIONAL DETAILS

Proposed Acoustic Berm
ALSO SEE "TYPICAL BERM DETAIL" (THIS PAGE)

Optional Visual/Storage Berm
ALSO SEE "TYPICAL BERM DETAIL" (THIS PAGE)

No Processing
ALSO SEE NOTE M 'NOISE' FOR ADDITIONAL DETAILS

Portable Processing Plant with Barrier
ALSO SEE NOTE M 'NOISE'

Cross Sections
SEE PAGE 1 AND 3 OF 3 FOR EXISTING AND REHABILITATED CROSS SECTIONS

Site Plan Amendments

No.	Date	Description	By

MNR Approval Stamp

Stamp

LAFARGE Building better cities™

Applicant's Signature

Chris Galway

Senior Land Manager - East Central Ontario Laxfield Canada Inc.

Project

Goodwood Pit Extension

Lafarge Canada Inc.
6509 Airport Road, Mississauga Ontario L4V 1S7
Tel: (905) 738-7732

MNR Licence Reference No.

Pre-approval review:

Revisions per MNR and Agency Peer Review comments - June 2022

Revisions as per agency comments - January 2025

ARA Complete - February 2024

Plan Scale 1:2,000 (Arch D)

HORIZONTAL SCALE

25 0 25 50 75 100 METRES

Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

Drawn By D.G.S.

Checked By C.P.

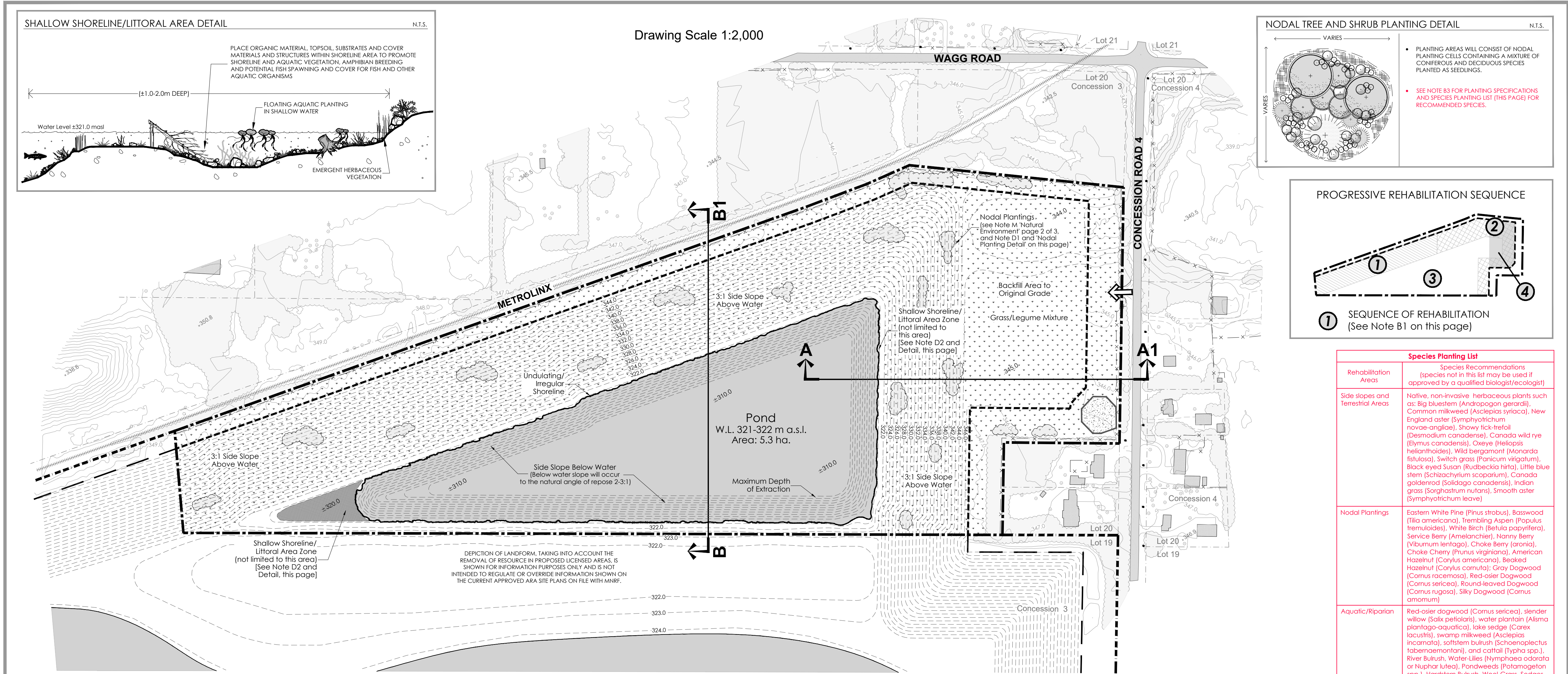
File No. 9526HC

File Name

Drawing No.

OPERATIONAL PLAN

2 OF 3



A. General

- Area Calculations:
 - Licence Area: 17.9 hectares (44.2 acres)
 - Limit of Extraction: 15.4 hectares (38.1 acres)
- The rehabilitated landform of this site will include: pond, shallow shoreline/littoral area zone, 3:1 side slopes and an area that will be backfilled to original grade. Nodal tree and shrub plantings will also be part of rehabilitation.

B. Phasing

- Rehabilitation will be progressive following the direction of extraction and proceed as limits of extraction (area and depth) are reached. The sequence of rehabilitation will follow the "Sequence of Operations" diagram located on page 2 of 3. The above water side slopes in Extraction Area 1 and Extraction Area 2 will be rehabilitated prior to below water extraction commencing in Extraction Area 2. This will involve grading to a 3:1 slope and covering the area with a minimum of 150mm of topsoil/ organic matter. Below water side slopes will be rehabilitated as below water excavation proceeds across the site. The area to be backfilled to original grade adjacent to Concession 4 Road will be the final stage of land form rehabilitation on site [See "Progressive Rehabilitation Sequence" on this page].

C. Slopes and Grading

- Topsoil and overburden will be used in the progressive rehabilitation of the side slope areas. Above water side slope areas will be covered with a minimum 150mm of topsoil/organic matter. Overburden/soil will be used to backfill pit faces to desired finished grades (i.e. 3:1 slope). Importation of excess soil will be required to achieve the rehabilitated landform as shown.

- Importation of excess soil is planned for this site to facilitate progressive and final rehabilitation.
 - Excess soil, as defined in Ontario Regulation 244/97 may be imported to this site to facilitate the following rehabilitation:
 - Creation of 3:1 slopes (or sloping ratio otherwise described on this page)
 - Top dressing to establish vegetation
 - Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not authorized for importation to the site.
 - The quality of excess soil imported to the site for final placement must be equivalent to or more stringent than the applicable excess soil quality standards as determined in accordance with Ontario Regulation 244/97 as amended from time to time and must be consistent with the site conditions and the end use identified in the approved rehabilitation plan.
 - Where a qualified person is retained or required to be retained in accordance with Ontario Regulation 244/97, the quality, storage, and final placement of excess soils shall be done according to the advice of the qualified person.
 - Excess soil imported to facilitate rehabilitation as described on this site plan shall be undertaken in accordance with Ontario Regulation 244/97 under the Aggregate Resources Act, as amended from time to time.
 - The cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is 2,250,000 m³.

D. Proposed Vegetation and Rehabilitated Features

- All nodal tree and shrub plantings and side-slope seeding will consist of native non invasive vegetation species. All ground covers on overburden piles and side slopes will be established as part of the phased stripping operations that proceed extraction and will be maintained and replaced should it fail to establish itself to control erosion.
- Shallow Shoreline / Shallow Littoral Area
 - The following recommendations shall be incorporated into the planting design. All plantings (i.e. nodal plantings) included in the rehabilitation plan shall be locally native, non-invasive species that create habitat in the short term and promote natural succession processes. Recommended shoreline and aquatic plants are listed in the species planting list (this page). Shoreline and aquatic plantings will coincide with the final stages of rehabilitation.
 - Shallow littoral/wetland habitats should be created through construction of submerged benches up to 2 m deep.
 - Shallow emergent marsh vegetation (i.e. herbaceous species listed above) shall be planted in water ±0.15 m deep and extend ±5 m from the shore and be interspersed with cover structures (e.g., boulders and root wads) in the shallow shoreline littoral/wetland areas.
 - Organic material and topsoil shall be added to the shoreline areas to promote shoreline vegetation, and the placement of basking logs (i.e. large woody debris) and rubble/boulders along the shoreline to create turtle basking areas, waterfowl nesting areas and bird perching sites [see "Shallow Shoreline Detail" and "Shoreline Wetland Detail" this page].
 - A section of northwest wetland shoreline shall be made into a turtle nesting feature (gravel, >3.0m in diameter, >0.5m depth, south facing, slope <30 degrees) and a number of duck boxes shall be installed within the wetland area.
 - A minimum of 5% of the pond area shall be restored to shallow shoreline/littoral habitat.

3. Side Slopes, Setbacks & Backfilled Areas

- Final grading of slopes shall include the creation of pit and mound type topography through the use of rough and loose topsoil placement, placement of root wads, large stumps and logs, and boulders.
- Side slope and backfilled areas will be covered with a minimum 150mm of topsoil/organic matter and seeded with the species included in the species planting list (this page).
- Seeding activities including site preparation, planting protocols and, species selection that are completed as part of rehabilitation shall follow the Toronto and Region Conservation Authority Seed Mix Guideline V.2.0 January 2022 or shall be undertaken under the direction of a qualified ecologist/biologist.
- Terrestrial nodal plantings on the side slope and within the setback areas shall include a mixture of coniferous and deciduous tree species to promote species diversity and provide a variety of species to compensate for any substrate deficiencies. Recommended species are included in the Species planting list (this page). It is recommended that ash (*Fraxinus* spp.) species be avoided in rehabilitation plantings due to the invasion of the emerald ash borer.
- The free/shrub planting nodes will be established approximately 100m apart and each planting node shall be 10x30m each in size. The planting nodes will represent no less than 5% of the side-slope habitat area.
- The establishment of nodal planting areas/cells will occur progressively and generally follow the sequence of extraction and side slope/setback grading and seeding.

4. Vegetation Monitoring & Management

- Where slopes are not too steep, the grassland/meadow areas should be cut at a height of about 20cm (8") twice during the first growing season to help control aggressive weeds.
- During the first year of establishment, aggressive weeds or invasive species shall be controlled using best management practices.
- All nodal tree/shrub plantings and tree screens shall be monitored for the first three years after planting and stems that have died shall be replaced in the subsequent planting season.
- Seeded areas including, grassland and slope areas above the final water level, shall be monitored until grassland cover is adequately established. Additional seeding shall occur in any areas where vegetation fails to establish.

5. Rehabilitated Landform

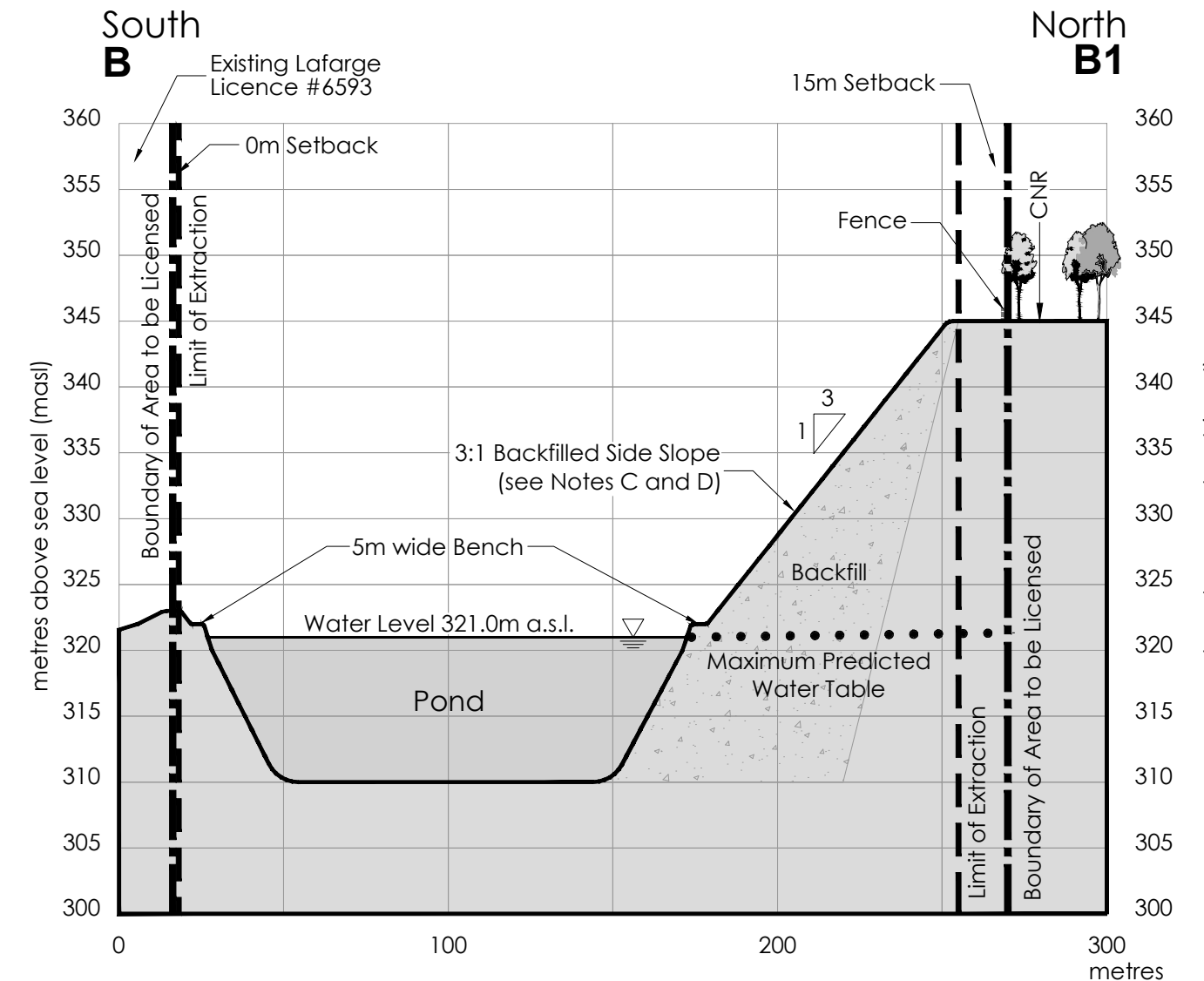
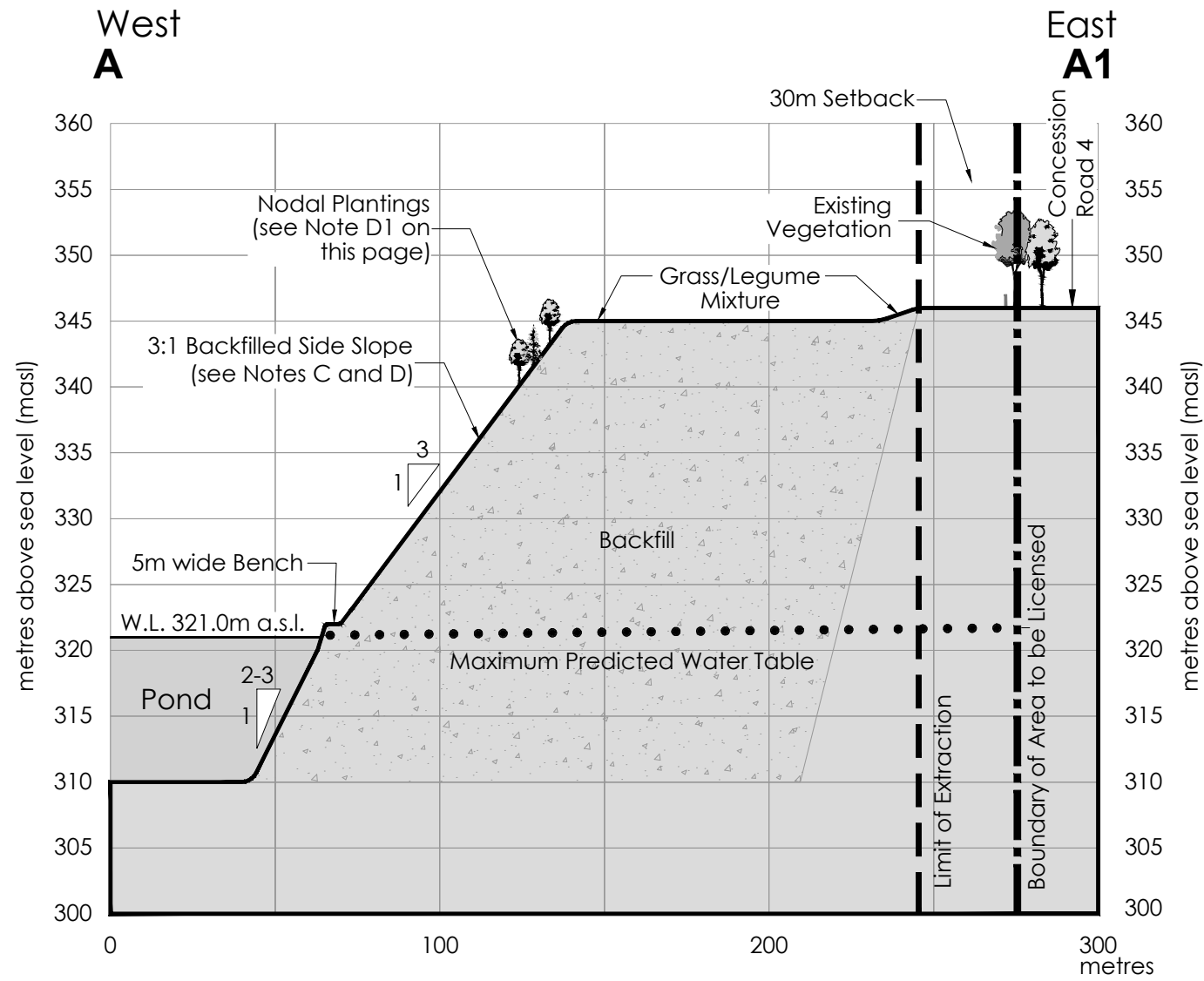
The proposed rehabilitation includes an opportunity to enhance the biological diversity of the local landscape by providing a feature that will attract migratory waterfowl and provide elements that will be of value to locally resident wildlife. Rehabilitation of this site involves the creation of 5.3 ha. of lake and 9.7 ha. of terrestrial landform comprised of overburden side slopes, setback areas and an area backfilled to original grade for future development opportunity. The final pit landform will be in accordance with the drawing as shown on this page.

E. Drainage

- Final surface drainage will follow the rehabilitated contours as shown and be directed towards the post-extraction pond.

F. Final Rehabilitation

- No buildings or structures associated with aggregate operations will remain on site.
- There will be no internal roads remaining on the site.
- The water level of the proposed lake (± 321m a.s.l.) and the post extraction ground water table, are as shown on pages 1 and 3 of 3 as per hydrogeological/hydrological assessments.



Horizontal Scale 1:2,000
Vertical Exaggeration 4x

Legal Description

PART OF LOT 20
CONCESSION 3
Township of Uxbridge
Region of Durham

Legend

	Boundary of Area to be Licensed		Limit of Extraction ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES
	Existing Licensed Boundary GOODWOOD PIT - LICENCE #6593		Existing Extraction Limit GOODWOOD PIT - LICENCE #6593
	Contour and Elevation METRES ABOVE SEA LEVEL		Proposed Contour METRES ABOVE SEA LEVEL (m A.S.L.)
	Spot Height Elevation METRES ABOVE SEA LEVEL		Proposed Spot Elevation MAXIMUM DEPTH OF EXTRACTION PROPOSED PIT FLOOR (m A.S.L.)
	Existing Vegetation		Maximum Depth of Extraction
	Field Access		Proposed Pond METRES ABOVE SEA LEVEL (m A.S.L.)
	Maximum Predicted Water Table (SEE NOTE F AND CROSS SECTIONS ON THIS PAGE)		Proposed Shallow Littoral Area (SEE DETAIL ON THIS PAGE)
	Vegetation/Trees EXISTING/PROPOSED AS INDICATED		Nodal Planting Areas SEE ALSO PAGE 2 OF 3 NOTE M "NATURAL ENVIRONMENT"
	Cross Sections SEE PAGE 1 AND 3 OF 3 FOR EXISTING AND REHABILITATED CROSS SECTIONS		Grassland Area (SEE NOTE D ON THIS PAGE)

Site Plan Amendments

No.	Date	Description	By

No.

Date

Description

By

MHBC

PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

200-540 BINGMANS CENTRE DR., KITCHENER, ONT. N2H 3K9 | P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

MNR Approval Stamp

Stamp

CAITLIN M. POPE
REGISTERED PROFESSIONAL
PLANNING
P.L.P.

North

LAFARGE

Building better cities™

Applicant's Signature

Chris Galway

Senior Land Manager - East Central Ontario

Lafarge Canada Inc.

Project

Goodwood Pit Extension

Lafarge Canada Inc.

6509 Airport Road, Mississauga Ontario L4V 1S7

Tel: (905) 738-7732

MNR Licence Reference No.

Pre-approval review:

Revisions per MNR and Agency Peer Review comments - June 2025

Revisions as per agency comments - January 2025

ARA Complete - February 2024

Plot Scale 1:2.0 [1mm = 2.0 units] MODEL

Drawn By D.G.S.

Checked By C.P.

File No. 9526HC

File Name

Drawing No.

REHABILITATION PLAN

3 OF 3

K:\9526HC-Lafarge-Goodwood Pit Extension-Uxbridge\A\Site Plan Revisions June 2025\Goodwood Pit Rehapian 3of3 June2025.dwg