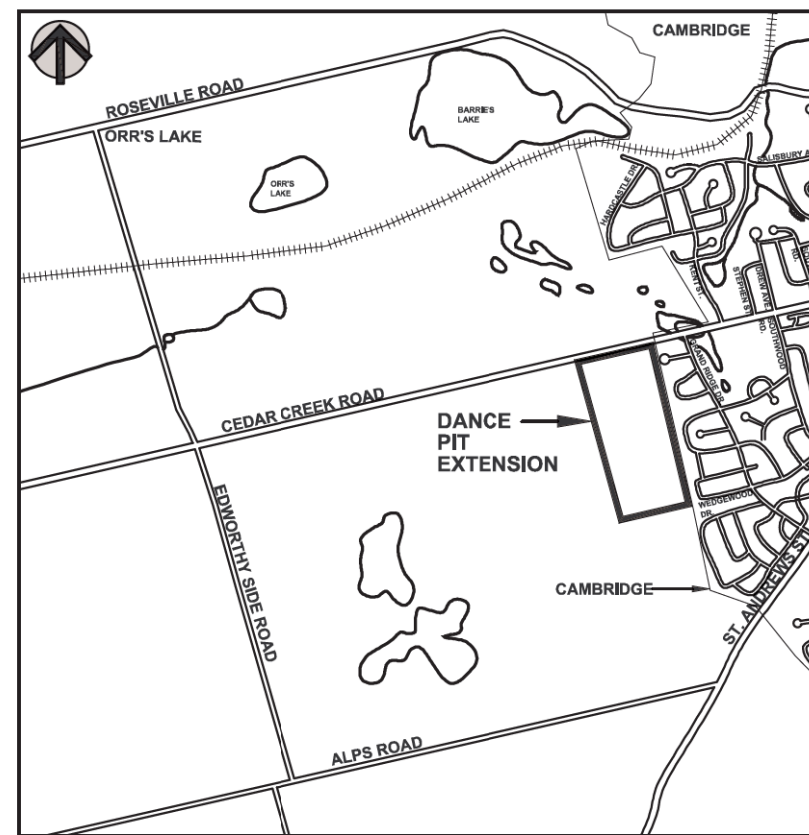


## KEY MAP



## EXISTING FEATURES NOTES

### GENERAL SITE PLAN INFORMATION

1. THIS SITE PLAN CONSISTS OF 5 DRAWINGS AND MUST BE READ COLLECTIVELY.
2. ALL MEASUREMENTS SHOWN ON THIS SITE PLAN ARE IN METRES.

### LICENCE INFORMATION

3. THIS SITE PLAN IS PREPARED FOR SUBMISSION TO THE MINISTRY OF NATURAL RESOURCES AND AN FORESTRY UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, PIT ABOVE THE WATER TABLE.

4. APPLICANT:  
ST. MARYS CEMENT INC. (CANADA),  
55 INDUSTRIAL STREET  
TORONTO, ON, M4G 3W9

5. TOTAL AREA TO BE LICENCED: 28.4 ha  
TOTAL AREA TO BE EXTRACTED: 21.2 ha  
TOTAL AREA TO BE REHABILITATED: 21.2 ha

### BASE INFORMATION

6. TOPOGRAPHIC INFORMATION WAS OBTAINED FROM EXISTING FEATURES PLAN (SHEET 1 OF 3) OF CEDAR STREET PIT BY PLANNING INITIATIVES LTD. DATED OCTOBER 1991 AND FIRST BASE SOLUTIONS, JANUARY 1, 2017.  
THE SITE WAS FIELD CHECKED BY HARRINGTON McAVAN LTD., MAY 2, 2016.
7. ZONING INFORMATION OBTAINED FROM THE CITY OF CAMBRIDGE SCHEDULE "A" TO ZONING BY-LAW NUMBER 150-13, MAP 1, DATED AUGUST 12, 2013 AND THE TOWNSHIP OF NORTH DUMFRIES, ZONING MAP - NORTH CENTRAL TOWNSHIP, JULY 2019.

### HYDROGEOLOGICAL INFORMATION

8. HYDROGEOLOGICAL INFORMATION INCLUDING GROUNDWATER ELEVATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED APRIL 2021 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).
9. THE WATER TABLE ELEVATION SLOPES ACROSS SITE AND RANGES BETWEEN 307.2 - 309.3m ABOVE SEA (M.A.S.L.) BASED ON THE HYDROGEOLOGICAL REPORT (SEE ABOVE).

### TECHNICAL REPORTS

10. HYDROGEOLOGICAL INFORMATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED APRIL 2021 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).
11. NATURAL ENVIRONMENT INFORMATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED APRIL 2021 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).
12. ARCHAEOLOGICAL INFORMATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED SEPTEMBER 2017 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).
13. AIR QUALITY ASSESSMENT INFORMATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED DECEMBER 2019 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).
14. ACOUSTICAL INFORMATION WAS OBTAINED FROM NOISE REPORT BY GOLDER ASSOCIATES LTD. DATED MARCH 2021 (REFER TO SHEET 3 OF 5 FOR TECHNICAL RECOMMENDATIONS).

## LEGEND

	120m INFORMATION BOUNDARY
	BOUNDARY OF AREA TO BE LICENCED
	REGULATORY SETBACK LINE
	LIMIT OF EXTRACTION LINE
	LOT/ CONCESSION LINE
	PROPERTY LINE
	EXISTING FENCE
	EXISTING 1m CONTOUR LINE
	EXISTING 1m CONTOUR LINE
	EXISTING VEGETATION
	EXISTING BERM
	EXISTING EXTRACTION FACE
	EXISTING STOCKPILE
	EXISTING WETLAND
	EXISTING FIELD ENTRANCE/EXIT
	EXISTING PIT ENTRANCE/EXIT
	EXISTING HYDRO POLE
	DIRECTION OF SURFACE WATER DRAINAGE
	BOREHOLE LOCATION AND NUMBER DRILLED AND MONITORING WELLS INSTALLED BY GOLDER ASSOCIATES LTD. JANUARY 2016
	TEST PIT LOCATION AND NUMBER DUG BY APPLICANT JANUARY 2016
	LOCATION OF SECTION
	EXISTING BUILDING AND NUMBER

## BUILDING LIST

No.	
1.	ONE STORY HOUSES
2.	TWO STORY HOUSES
3.	SHED
4.	BARN

No.	DATE	REVISIONS	OWNER	HM	WM
2	JUNE 2023	PER MNRF COMMENTS			
1	OCT 2022	PER MNRF COMMENTS			

No.	DATE	REVISIONS	OWNER	HM	WM

### Pre Licence Review

### Site Plan Amendments



### Project Name



St. Marys Cement Inc. (Canada)  
55 Industrial Street  
Toronto, Ontario  
M4G 3W9  
(416) 423-1300

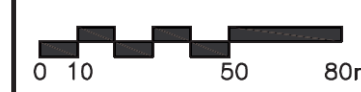
## DANCE PIT EXTENSION

### LICENSEE SIGNATURE

LICENCE No.

PART LOT 14 & 15, CONCESSION 10  
TOWNSHIP OF NORTH DUMFRIES,  
REGIONAL MUNICIPALITY OF WATERLOO

Scale 1:2000



### Drawing Status

ISSUED  
FOR APPROVAL

Drawn S.B./ A.C.

Drawing Title

EXISTING  
FEATURES  
PLAN

Checked G.D.H./R.M.

Issue Date JUNE 2023

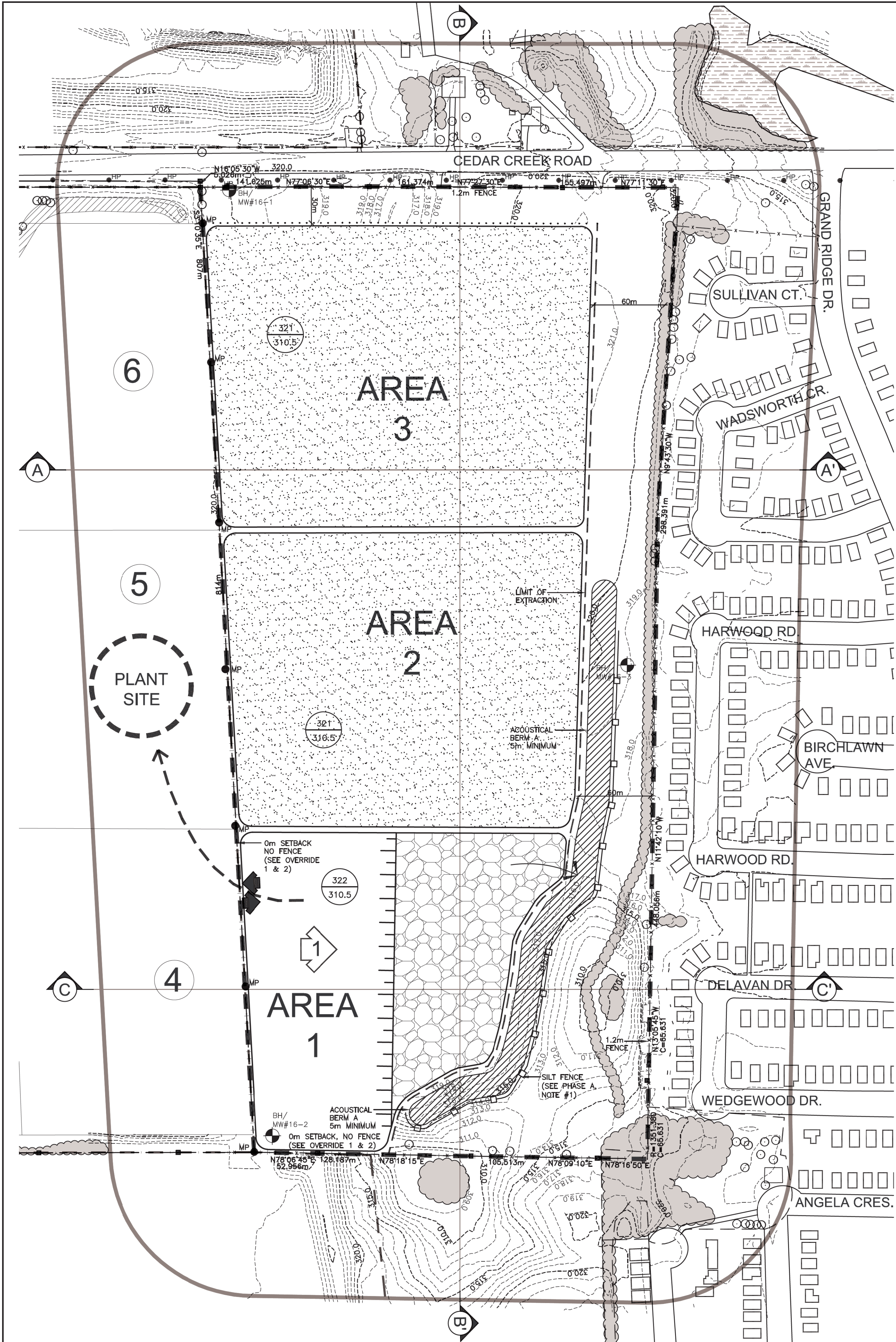
Project Number

12-10

Drawing Number

1 OF 5





OPERATIONS NOTES

GENERAL INFORMATION

1. THIS PLAN DEPICTS AN OPERATIONS AND REHABILITATION SEQUENCE FOR THIS PROPERTY BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION. PHASES SHOWN MAY VARY WITH MATERIAL QUALITY, SITE HYDROLOGY AND HYDROGEOLOGY OR MARKET DEMAND. PHASES DO NOT REPRESENT ANY SPECIFIC OR EQUAL TIME PERIOD.  
  
EXTRACTION SHALL FOLLOW THE SEQUENCE SHOWN. WHEN PARTIAL REHABILITATION OF A PHASE IS POSSIBLE IT SHALL BE CARRIED OUT AND SHALL MATCH THE REHABILITATION GRADES OF THE ADJACENT LICENCE. NOT WITHSTANDING THE EXTRACTION AND REHABILITATION PROCESS ABOVE, DEMAND FOR CERTAIN PRODUCTS OR BLENDING OF MATERIALS MAY REQUIRE SOME DEVIATION IN THE EXTRACTION AND REHABILITATION PHASING. ANY MAJOR DEVIATIONS FROM THE OPERATIONS SEQUENCE SHOWN WILL REQUIRE APPROVAL FROM MNRF.  
  
THERE WILL BE NO RECYCLING ON SITE.
2. REFER TO DRAWING 1 OF 5. EXISTING FEATURES, FOR A DESCRIPTION OF EXISTING VEGETATION AND BUILDINGS WITHIN THE 120 METRE BOUNDARY AND ON SITE.
3. SITE PLAN OVERRIDES ARE LISTED IN THE SITE PLAN OVERRIDE TABLE SHOWN ON THIS PAGE.

RESOURCE INFORMATION

4. RESOURCE INFORMATION IS OBTAINED FROM 'AGGREGATE RESOURCE EVALUATION' REPORT BY GOLDER ASSOCIATES LTD. DATED FEBRUARY 2016.

EXTRACTION/PROCESSING/HAULING INFORMATION

5. TOTAL AREA TO BE EXTRACTION IS 21.2 HECTARES.
6. COMBINED MAXIMUM NUMBER OF TONNES OF AGGREGATE TO BE REMOVED FROM THIS SITE AND ADJACENT LICENCE No. 17348 IN ANY CALENDAR YEAR IS 750,000 TONNES.
7. EXTRACTION OF SAND AND GRAVEL ABOVE WATER TABLE WILL TAKE PLACE IN ONE BENCH, WITH A MAXIMUM HEIGHT OF 10 METRES. THE GROUNDWATER TABLE SLOPES ACROSS THE SITE AND RANGES FROM 307.2 - 309.3m ABOVE SEA LEVEL (M.A.S.L.) (SEE HYDROGEOLOGICAL REPORT). EXTRACTION WILL BE BY FRONT END LOADERS AND AGGREGATE WILL BE TRANSPORTED BY TRUCK OR CONVEYOR TO THE PLANT IN ADJACENT LICENCE No. 17348 FOR FURTHER PROCESSING AND SHIPPING. REFER TO SECTIONS A-A AND B-B' ON DRAWING 3 OF 5 FOR FURTHER DETAILS.  
  
EQUIPMENT TO BE USED IN THE OPERATION OF THE PIT MAY INCLUDE TRUCKS, LOADERS, EXCAVATORS, BULLDOZERS, SCRAPERS, CONVEYORS AND OTHER RELATED EQUIPMENT.  
  
THERE WILL BE NO AGGREGATE RECYCLING ON SITE.
8. EQUIPMENT, SCRAP AND MACHINERY ASSOCIATED WITH THE EXTRACTION OPERATIONS WILL BE REMOVED UPON COMPLETION OF EXTRACTION.

HYDROGEOLOGICAL INFORMATION

9. HYDROGEOLOGICAL INFORMATION INCLUDING GROUNDWATER ELEVATION WAS OBTAINED FROM REPORT BY GOLDER ASSOCIATES LTD. DATED APRIL 2021.
10. THE WATER TABLE SLOPES ACROSS THE SITE AND RANGES FROM 307.2 - 309.3m ABOVE SEA LEVEL (M.A.S.L.) BASED ON THE HYDROGEOLOGICAL REPORT BY GOLDER ASSOCIATES, DATED APRIL 2021.
11. SURFACE DRAINAGE ON THE PIT FLOOR WILL BE DIRECTED TO LOW AREAS FOR WATER TO INFILTRATE INTO THE GRANULAR MATERIALS ON THE PIT FLOOR.  
  
SOURCE WATER PROTECTION POLICIES DO NOT APPLY TO THIS SITE (SEE HYDROGEOLOGICAL REPORT).

NOISE MITIGATION INFORMATION

12. HOURS OF OPERATION:  
SITE PREPARATION AND REHABILITATION: 07:00-18:00 WEEKDAYS;  
EXCAVATION: 07:00-18:00 WEEKDAYS;  
SHIPPING: 07:00-18:00 WEEKDAYS;  
  
ACTIVITIES ON SITE ON WEEKENDS SHALL BE LIMITED TO MAINTENANCE OF EQUIPMENT ONLY.

PHASE A  
SCALE 1:2000



PHASE A NOTES

1. PRIOR TO EXTRACTION COMMENCING IN AREA 1, CONSTRUCT AND UPGRADE THE FENCING ON PORTIONS OF THE LICENCED BOUNDARIES OF THE SITE TO THE STANDARDS OF THE AGGREGATE RESOURCES ACT (1.2m POST AND WIRE FENCE), EXCEPT WHERE SITE PLAN OVERRIDES ARE NOTED.
2. INSTALL SILT FENCE AS SHOWN (REFER TO AIR QUALITY TECHNICAL RECOMMENDATIONS, PAGE 3 OF 5).
3. PRIOR TO EXTRACTION IN AREA 1, PREPARE THE SITE WITHIN AREA 1 BY REMOVING ALL EXISTING TREES AND SCRUB VEGETATION LOCATED IN THE AREA TO BE EXTRACTION. REFER TO OPERATIONAL NOTE #18 FOR DETAILS REGARDING TREE HARVESTING AND USE OF STUMPS/ WOODY MATERIAL DURING PROGRESSIVE REHABILITATION.
4. PRIOR TO EXTRACTION IN AREA 1, STRIP TOPSOIL AND OVERBURDEN SEPARATELY. USE MATERIAL TO CONSTRUCT ACOUSTIC BERM A. EXCESS MATERIAL SHALL BE STOCKPILED ON PIT FLOOR.
4. BEGIN EXTRACTION IN AREA 1 IN DIRECTION SHOWN.
5. AREA 2 AND 3 TO REMAIN IN AGRICULTURAL USE.

AIR QUALITY INFORMATION

13. WATER OR CALCIUM CHLORIDE WILL BE APPLIED TO INTERNAL HAUL ROADS AND PROCESSING AREAS AS OFTEN AS REQUIRED TO MITIGATE DUST.

SITE MANAGEMENT INFORMATION

MAINTENANCE/PROTECTION OF VEGETATION INFORMATION

14. EXISTING VEGETATION WITHIN THE LICENCED AREA SHALL BE MAINTAINED IN A HEALTHY VIGOROUS GROWING CONDITION UNTIL SEQUENTIAL STRIPPING BEGINS OR UNTIL THE REHABILITATION IS COMPLETE. ANY VEGETATION PLANTED AS PART OF SITE IMPROVEMENTS OR PROGRESSIVE AND FINAL REHABILITATION WILL ALSO BE MAINTAINED IN A HEALTHY, VIGOROUS GROWING CONDITION.

FENCING INFORMATION

15. BOUNDARIES OF THE AREA TO BE LICENCED THAT ARE PRESENTLY FENCED ARE SHOWN ON DRAWING 1 OF 5 EXISTING FEATURES. PRIOR TO ANY STRIPPING OR PREPARATION, FENCING ON THE LICENCED BOUNDARIES WILL BE UPGRADED TO 1.2m HIGH POST AND WIRE FENCE TO COMPLY WITH THE AGGREGATE RESOURCES ACT WHERE REQUIRED (EXCEPT WHERE SITE PLAN OVERRIDES ARE NOTED). HIGHLY VISIBLE AND SEPARATELY DISTINGUISHABLE 1.2m HIGH PAINTED MARKER POSTS WILL BE INSTALLED ALONG THE WEST SHARED BOUNDARY.

- SILT FENCE SHALL BE INSTALLED AT THE OUTSIDE TOE OF ALL BERMS AS THEY ARE CONSTRUCTED. ALL FENCING AND MARKER POSTS SHALL BE MAINTAINED.

TOPSOIL/SUBSOIL/OVERBURDEN STORAGE INFORMATION

16. TOPSOIL AND OVERBURDEN SHALL BE STRIPPED AND STORED SEPARATELY IN BERMS AND STOCKPILES. AS SHOWN, SOIL STRIPPING/HANDLING WILL ONLY OCCUR DURING DRY (UNSATURATED) AND UNFROZEN CONDITIONS. TOPSOIL, BERMS SHALL BE GRADED TO STABLE SLOPES AND SEEDED WITH A GRASS/LEGUME MIXTURE TO PREVENT EROSION AND MINIMIZE DUST. IF TOPSOIL IS STORED IN STOCKPILES FOR PROLONGED PERIODS, EROSION CONTROL MEASURES WILL BE ESTABLISHED. PRIOR TO THE COMMENCEMENT OF STRIPPING, BASELINE SOIL SAMPLING WILL BE UNDERTAKEN TO DOCUMENT KEY AGRICULTURAL SOIL CHARACTERISTICS (E.G., MACRO AND MICRONUTRIENTS, PH, CEC, ORGANIC MATTER, SOIL TEXTURE, STRUCTURE, AND BULK DENSITY ETC.), USING AN ACCREDITED LAB FOR ANALYTICAL TESTING.

BERM INFORMATION

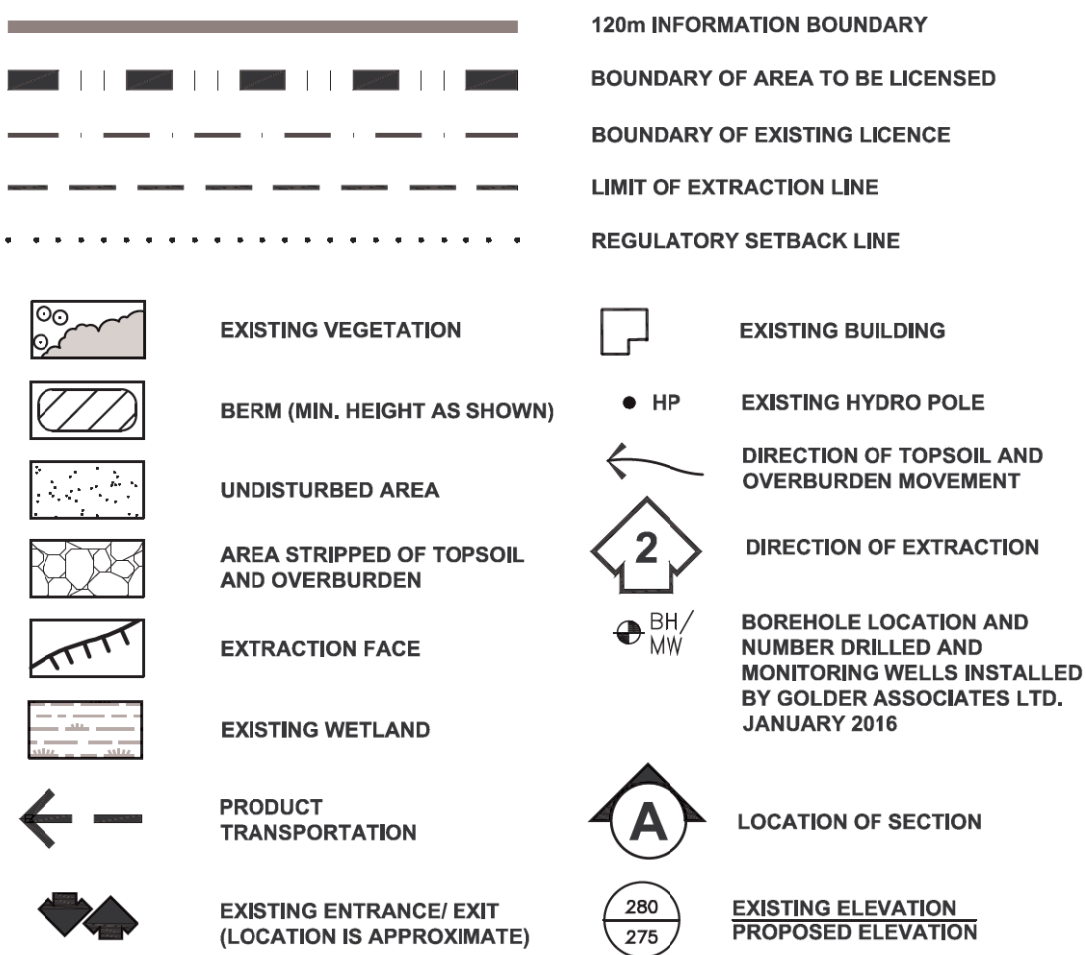
17. BERMS SHALL CREATE AN ACOUSTICAL BARRIER PER TECHNICAL RECOMMENDATIONS. BERMS SHALL NOT EXCEED 2:1. REFER TO TYPICAL BERM CROSS SECTION ON DRAWING 4 OF 5 DETAILS AND SECTIONS. ALL BERMS SHALL BE SEEDED (USING GRASS/ LEGUME MIXTURE, SEE REHABILITATION PLAN, NOTE #7) IMMEDIATELY UPON COMPLETION.

- ON COMPLETION OF THE BERMS, EXCESS ON-SITE OVERBURDEN WILL BE USED TO PROGRESSIVELY BACKFILL AND REHABILITATE THE SITE.

SCRAP STORAGE INFORMATION

18. ALL SCRAP AND USED MACHINERY GENERATED THROUGH THE OPERATIONS WITHIN THIS LICENCE WILL BE REMOVED ON AN ONGOING BASIS. LOGS WILL BE UTILIZED FOR FIREWOOD OR THEIR BEST USE. STUMPS, LOGS, AND OVERSIZE ROCKS MAY REMAIN ON SITE FOR USE IN PROGRESSIVE REHABILITATION. STUMPS WILL BE GROUND AND OVERSIZE ROCKS SHALL BE USED TO CONSTRUCT THE BASE OF SIDE SLOPES. UPON COMPLETION OF EXTRACTION, ALL SCRAP EQUIPMENT AND USED MACHINERY SHALL BE REMOVED.

LEGEND



SITE PLAN OVERRIDE (VARIANCE)

THE FOLLOWING CONDITIONS ILLUSTRATED ON THESE PLANS VARY FROM THE OF THE PROVINCIAL STANDARDS MADE UNDER THE AGGREGATE RESOURCES ACT

ITEM	SECTION
FENCING IS OMITTED ALONG THE ENTIRE WEST BOUNDARY, ADJACENT LICENCED LANDS UNDER SAME LICENSEE, AND ALONG THE SOUTH BOUNDARY PER AGREEMENT WITH ADJACENT LICENSEE/LANDOWNER.	0.13(3)a
SETBACK IS REDUCED TO 0m ALONG WEST BOUNDARY, ADJACENT LICENCED LANDS UNDER SAME LICENSEE AND ALONG THE SOUTH BOUNDARY PER AGREEMENT WITH ADJACENT LICENSEE/LANDOWNER.	0.13(1)(b)
GATE OMITTED BETWEEN THE SITE AND ADJACENT LICENCE, ADJACENT LICENCED LANDS UNDER THE SAME LICENSEE.	0.13(1)(f)
STOCKPILES MAY BE LOCATED WITHIN 30m OF THE WEST BOUNDARY, ADJACENT PIT IS SAME LICENSEE.	0.13(1)(3)

NO.	DATE	REVISIONS	OWNER	HM	MM
5	JULY 2023	PER OMAFRA COMMENTS			
4	JUNE 2023	PER OMAFRA COMMENTS			
3	JUNE 2023	PER OMAFRA & MNRF COMMENTS			
2	FEB 2023	PER MNRF COMMENTS			
1	OCT 2022	PER MNRF COMMENTS			

Pre Licence Review

Site Plan Amendments



Project Name



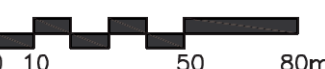
St. Marys Cement Inc. (Canada)  
55 Industrial Street  
Toronto, Ontario  
M4G 3W9  
(416) 423-1300

DANCE PIT EXTENSION

LICENSEE SIGNATURE

LICENCE No.  
PART LOT 14 & 15, CONCESSION 10  
TOWNSHIP OF NORTH DUMFRIES,  
REGIONAL MUNICIPALITY OF WATERLOO

Scale 1:2000



Drawing Status

ISSUED  
FOR APPROVAL

Drawn A.C./S.B.

North



Checked G.D.H./R.M

Stamp



Issue Date JULY 2023

OPERATIONAL  
PLAN  
PHASE A

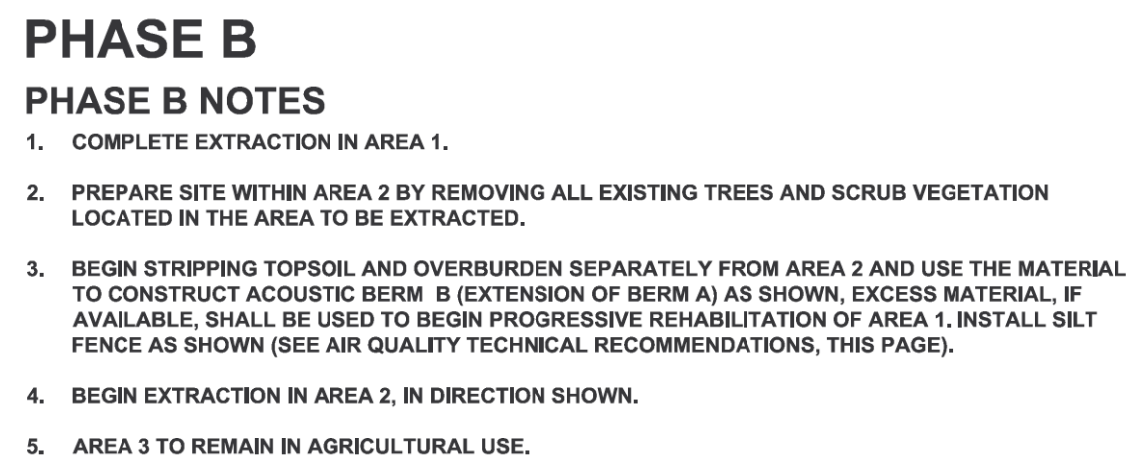
Project Number

12-10

Drawing Number

2 OF 5

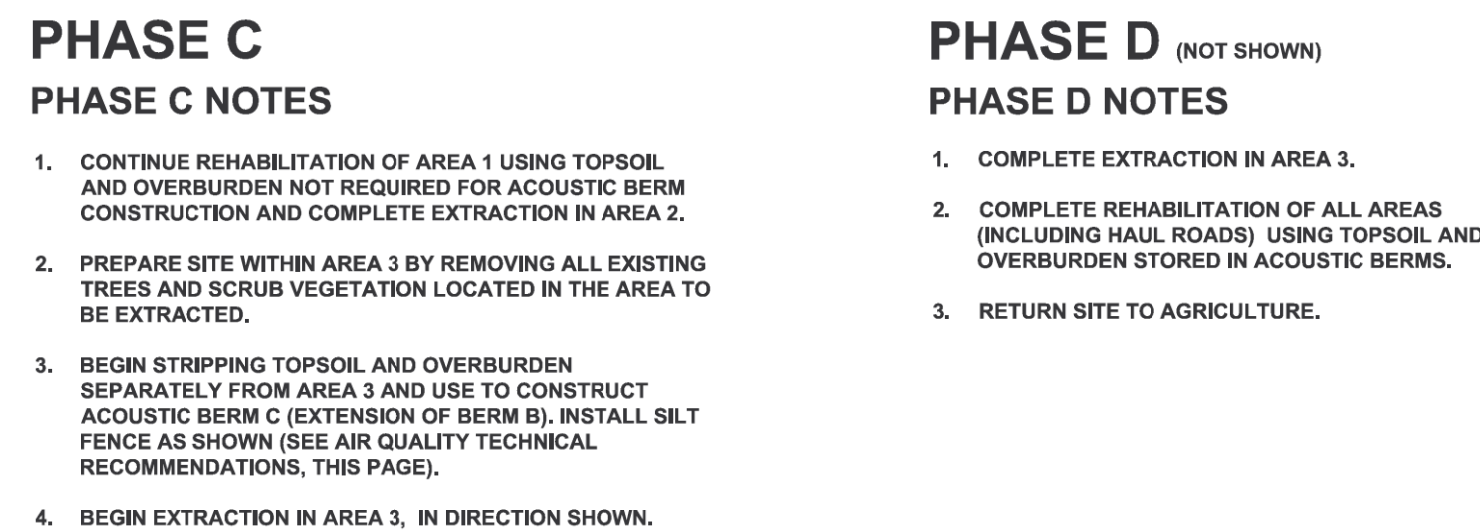




## PHASE B NOTES

1. COMPLETE EXTRACTION IN AREA 1.

1. COMPLETE EXTRACTION IN AREA 1.
2. PREPARE SITE WITHIN AREA 2 BY REMOVING ALL EXISTING TREES AND SCRUB VEGETATION LOCATED IN THE AREA TO BE EXTRACTION.
3. BEGIN STRIPPING TOPSOIL AND OVERBURDEN SEPARATELY FROM AREA 2 AND USE THE MATERIAL TO RECONSTRUCT ACHIEVE A 15% COMPRESSION OF BERM AS AS SHOWN. EXCESS MATERIAL IF AVAILABLE, SHALL BE USED TO BEGIN PROGRESSIVE REHABILITATION OF AREA 1. INSTALL SILT FENCE AS SHOWN (SEE AIR QUALITY TECHNICAL RECOMMENDATIONS, THIS PAGE).
4. BEGIN EXTRACTION IN AREA 2, IN DIRECTION SHOWN.
5. AREA 3 TO REMAIN IN AGRICULTURAL USE.



### PHASE C NOTES

## 1. CONTINUE REHABILITATION

- |   |  |
|---|--|
| 1. CONTINUE REHABILITATION OF AREA 1 USING TOPSOIL AND OVERBUDEN NOT REQUIRED FOR ACOUSTIC BERM CONSTRUCTION AND COMPLETE EXTRACTION IN AREA 2.   | 1. COMPLETE EXTRACTION IN AREA 3.  |
| 2. PREPARE SITE WITHIN AREA 3 BY REMOVING ALL EXISTING TREES AND SCRUB VEGETATION LOCATED IN THE AREA TO BE EXTRACTED.  | 2. COMPLETE REHABILITATION OF ALL AREAS (INCLUDING HAUL ROADS) USING TOPSOIL AND OVERBUDEN STORED IN ACOUSTIC BERMS. |
| 3. BEGIN STRIPPING TOPSOIL AND OVERBUDEN SEPARATELY FROM AREA 3 AND USE TO CONSTRUCT ACOUSTIC BERM C (EXTENSION OF BERM B). INSTALL SILT FENCE AS SHOWN (SEE AIR QUALITY TECHNICAL RECOMMENDATIONS, THIS PAGE). | 3. RETURN SITE TO AGRICULTURE.   |
| 4. BEGIN EXTRACTION IN AREA 3, IN DIRECTION SHOWN.  |  |

## PHASE D NOTES

## 1 COMPLETE EXTRACTION

1. COMPLETE EXTRACTION IN AREA 3.
2. COMPLETE REHABILITATION OF ALL AREAS (INCLUDING HAUL ROADS) USING TOPSOIL AND OVERBURDEN STORED IN ACOUSTIC BERMS.
3. RETURN SITE TO AGRICULTURE.

THE FOLLOWING ARE THE TECHNICAL RECOMMENDATIONS FROM ALL OF THE EXPERTS' REPORTS AS OF APRIL 2021. ADDITIONAL RECOMMENDATIONS MAY BE INCLUDED AS A RESULT OF THE PRE-LICENCE REVIEW PROCESS.

ARCHAEOLOGICAL ASSESSMENT - GOLDER ASSOCIATES - SEPTEMBER 2017  
SHOULD DEEPLY BURIED ARCHAEOLOGICAL RESOURCES BE IDENTIFIED DURING GROUND DISTURBANCE  
ACTIVITY ASSOCIATED WITH FUTURE DEVELOPMENT OF THE SITE, GROUND DISTURBANCE ACTIVITIES  
SHOULD BE IMMEDIATELY HALTED AND THE ARCHAEOLOGY DIVISION OF THE CULTURE PROGRAMS UNIT OF  
THE MTCS NOTIFIED.

SHOULD PREVIOUSLY UNDOCUMENTED ARCHAEOLOGICAL RESOURCES BE DISCOVERED, THEY MAY BE A NEW ARCHAEOLOGICAL SITE AND THEREFORE SUBJECT TO SECTION 48 (1) OF THE ONTARIO HERITAGE ACT. THE PROPOSITOR OR PERSON DISCOVERING THE ARCHAEOLOGICAL RESOURCES MUST CEASE ALTERATION OF THE SITE IMMEDIATELY AND ENGAGE A LICENSED CONSULTANT ARCHAEOLOGIST TO CARRY OUT ARCHAEOLOGICAL FIELDWORK, IN COMPLIANCE WITH SECTION 48(1) OF THE ONTARIO HERITAGE ACT.

THE FUNERAL, BURIAL AND CREMATION SERVICES ACT, 2002, S.O. 2002, C.33, REQUIRES THAT ANY PERSON DISCOVERING OR HAVING KNOWLEDGE OF A BURIAL SITE SHALL IMMEDIATELY NOTIFY THE POLICE OR CORONER. IT IS RECOMMENDED THAT THE REGISTRAR OF CEMETERIES AT THE MINISTRY OF CONSUMER SERVICES IS ALSO IMMEDIATELY NOTIFIED.

## WATER RESOURCES ASSESSMENT - GOLDBER ASSOCIATES - APRIL 2021

1. QUARTERLY GROUNDWATER LEVEL MONITORING SHALL BE CARRIED OUT ON MONITORING WELLS BH16-1, BH16-2, AND BH16-3 TO MONITOR GROUNDWATER FLUCTUATIONS AND CONFIRM THE HIGH WATER TABLE LOCATION. MONITORING SHALL BE CARRIED OUT QUARTERLY AND REPORTED TO THE AGENCY IN WRITING. MONITORING SHALL BE CARRIED OUT TO DETERMINE IF THE WATER TABLE IS ABOVE THE WATER TABLE ON THE PROPERTY IN ACCORDANCE WITH THE WATER RESOURCE PROTECTION ACT, 2002.
2. ANNUAL WATER QUALITY MONITORING SHALL TAKE PLACE IN MONITORING WELLS BH16-1, BH16-2 AND BH16-3 DURING OPERATIONS, AND UP TO THE POINT OF LICENSE SURRENDER, FOR THE FOLLOWING PARAMETERS: GENERAL INORGANICS, METALS AND KICKENZ, TOLUENE, ETHYLBENZENE AND XYLENE (BTEX).
- WATER LEVEL AND QUALITY MONITORING SHALL BE DOCUMENTED IN AN ANNUAL REPORT BY A REGISTERED PROFESSIONAL ENGINEER AND PROVIDED TO THE AGENCY BY APRIL 30 AND BE AVAILABLE FOR REVIEW UPON REQUEST SHOULD NDMNR REQUEST IT.

**NOISE IMPACT ASSESSMENT - GOLDER ASSOCIATES - MARCH 2021**

1. THE IDENTIFIED BERMS WILL BE INSTALLED PRIOR TO EXTRACTION IN AREAS 1, 2, AND 3:
  - a) BERM A SHALL BE INSTALLED ALONG THE SOUTH BORDER OF AREA 1 AND ALONG THE EAST BORDER OF AREA 1 AND 2, WITH A MINIMUM HEIGHT OF 5m ABOVE EXISTING GRADE, PRIOR TO EXTRACTION IN AREA 1.
  - b) BERM B SHALL BE INSTALLED ALONG THE EAST BORDER OF AREAS 2 AND PARTIALLY AREA 3, WITH A MINIMUM HEIGHT OF 5m ABOVE EXISTING GRADE, PRIOR TO EXTRACTION IN AREA 2. THIS IS AN EXTENSION OF BERM A.
  - c) BERM C SHALL BE INSTALLED ALONG THE EAST BORDER OF AREA 3 WITH A MINIMUM HEIGHT OF 5m ABOVE EXISTING GRADE, PRIOR TO EXTRACTION AREA 3. THIS IS AN EXTENSION OF BERM B.
  - d) BERM D WILL BE INSTALLED ALONG THE NORTH BORDER OF NORTH LIMIT OF EXTRACTION WITH A MINIMUM HEIGHT OF 3m ABOVE EXISTING GRADE, PRIOR TO EXTRACTION IN AREA 3.
2. ONCE INSTALLED, BARRIERS SHALL REMAIN THROUGHOUT THE COMPLETION OF EXTRACTION OF THE EXTENSION LANDS.
3. LOCAL BARRIERS, OR ACOUSTICALLY EQUIVALENT SOURCE TREATMENT REDUCING NOISE LEVELS OF THE CRUSHING/SCREENING PLANT TO 55 dbA WHEN MEASURED AT A DISTANCE OF 100 m (IN THE DIRECTION OF FORD) SHALL BE INSTALLED.
4. ALTERNATIVE EQUIPMENT/OPERATIONS CAN BE CONSIDERED IF ASSESSED BY AN ACOUSTICAL CONSULTANT AND SHOWN TO MEET THE APPLICABLE NOISE LIMITS.






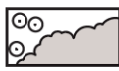





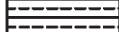








**NATURAL ENVIRONMENT REPORT - GOLDER ASSOCIATES - APRIL 2021**

1. GROUNDWATER LEVEL MONITORING, AS DESCRIBED IN THE MAXIMUM PREDICTED WATER TABLE REPORT (GOLDER 2021), WILL BE IMPLEMENTED; AND
2. THE SITE WILL BE REHABILITATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE REHABILITATION PLAN RETURNING THE SITE PRIMARILY TO AGRICULTURAL USE.

**AIR QUALITY IMPACT ASSESSMENT - GOLDBER ASSOCIATES - DECEMBER 2019**

1. NO PROCESSING EQUIPMENT SHALL BE LOCATED ON THE EXPANSION LAND AND/OR NO STOCKPIILING OF EXTRACTED MATERIALS.
2. WATER, OR SIMILAR DUST SUPPRESSANT WILL BE APPLIED TO ROADS IN THE EXPANSION AREA ON OPERATIONAL DAYS, AFTER 24-HOUR PERIODS OF NO PRECIPITATION.
3. A SILT FENCE WILL BE INSTALLED AT THE TOE OF THE BERM TO BE INSTALLED IN THE EXPANSION AREA.
4. A SPEED LIMIT OF 25 km PER HOUR WILL BE IMPOSED ON ROADS IN THE EXPANSION AREA.

# LEGEND

	12m INFORMATION BOUNDARY
	BOUNDARY OF AREA TO BE LICENSED
	BOUNDARY OF EXISTING LICENCE
	LIMIT OF EXTRACTION LINE
	REGULATORY SETBACK LINE
	EXISTING VEGETATION
	EXISTING WETLAND
	BERM (MIN. HEIGHT AS SHOWN)
	UNDISTURBED AREA
	AREA STRIPPED OF TOPSOIL AND OVERBURDEN
	EXTRACTION FACE
	AREA UNDER REHABILITATION
	REHABILITATION COMPLETE
	PRODUCT TRANSPORTATION
	EXISTING BUILDING
	HP
	DIRECTION OF TOPSOIL AND OVERBURDEN MOVEMENT
	DIRECTION OF EXTRACTION
	EXISTING ENTRANCE/ EXIT
	EXISTING ELEVATION PROPOSED ELEVATION

3.	JUNE 2023	PER MNRF COMMENTS								
2.	FEB 2023	PER MNRF COMMENTS								
1.	OCT 2022	PER MNRF COMMENTS								
NO.	DATE	REVISIONS	OWNER	H&M	W&R					

Pre Licence Review

## Site Plan Amendments



Project Name



**St. Marys Cement Inc. (Canada)**  
55 Industrial Street  
Toronto, Ontario  
M4G 3W9  
(416) 423-1300

## DANCE PIT EXTENSION

**LICENSEE SIGNATURE**

LICENCE No.

**PART LOT 14 & 15, CONCESSION 10  
TOWNSHIP OF NORTH DUMFRIES,  
REGIONAL MUNICIPALITY OF WATERLOO**

Scale 1:4000

Age Group (years)	Number of People
0-10	10
10-20	20
20-30	10
30-40	20
40-50	10
50-60	30
60-70	20
70-80	10
80-90	20
90-100	30
100-110	40
110-120	50
120-130	60
130-140	70
140-150	80

Drawing Status	
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**ISSUED  
FOR APPROVAL**

Drawn A.C./S.B.

Drawing Title

Drawing Title

# OPERATIONAL PLAN PHASE B - D

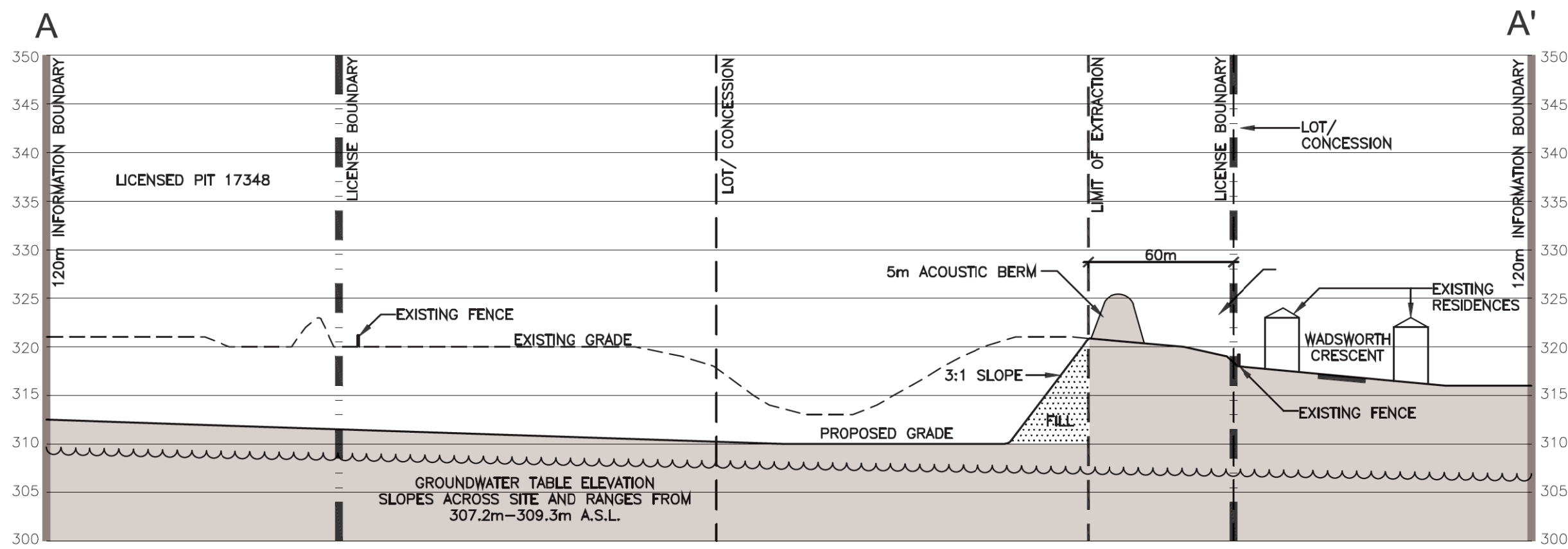
Project Number	
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Project Number  
12-12

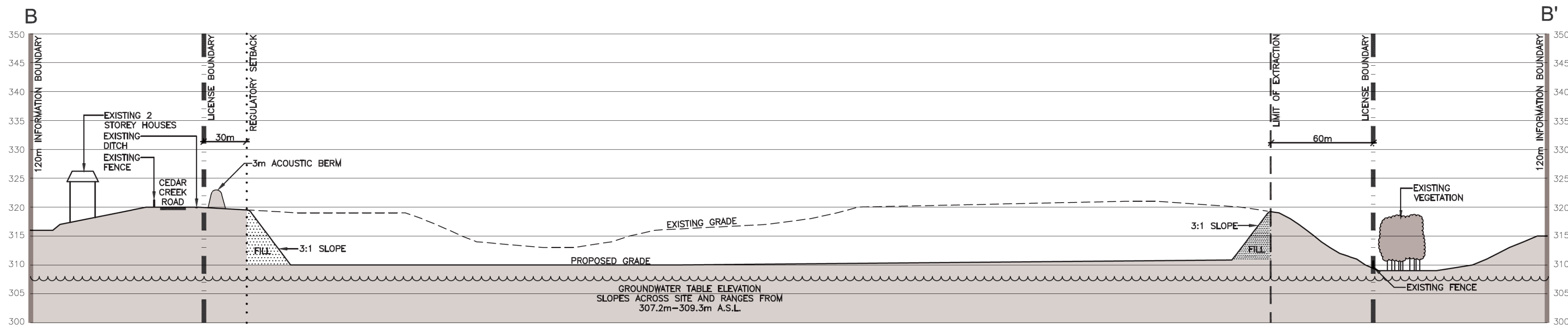
Drawing Number
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3 OF 5

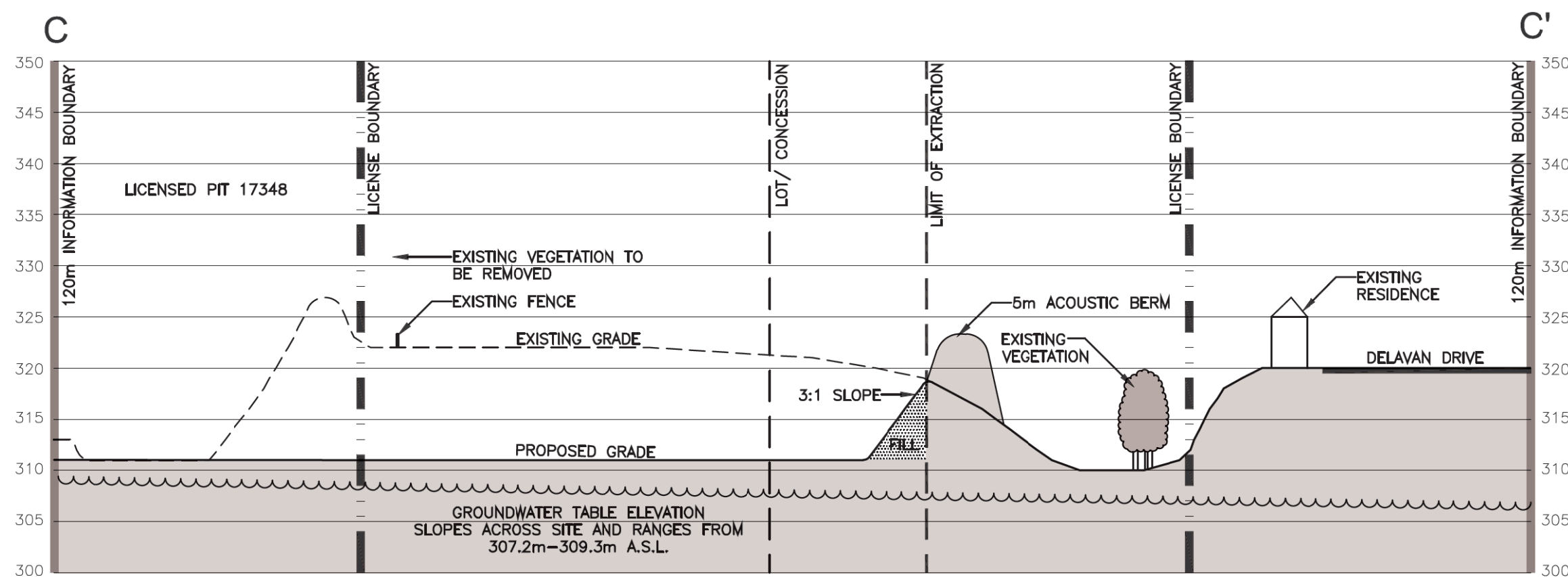




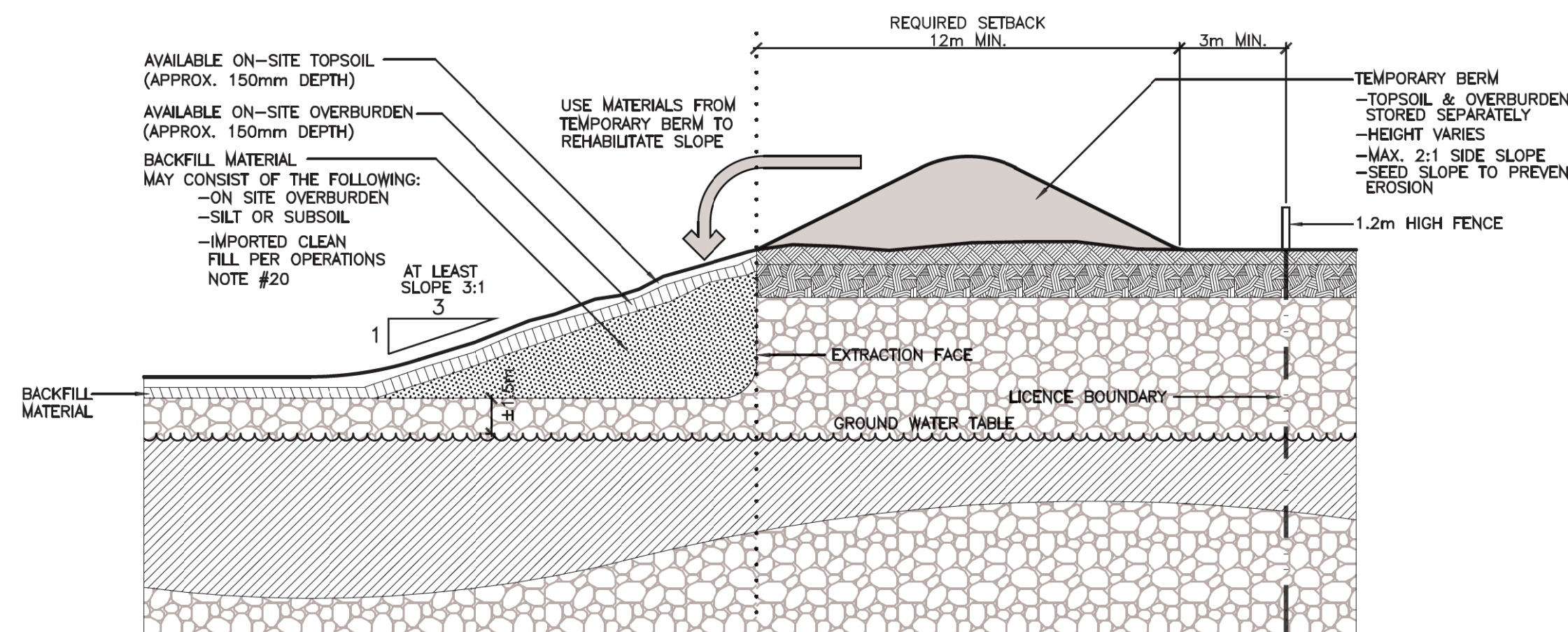
SECTION A-A' VERTICAL SCALE 1:500 HORIZONTAL SCALE 1:2000



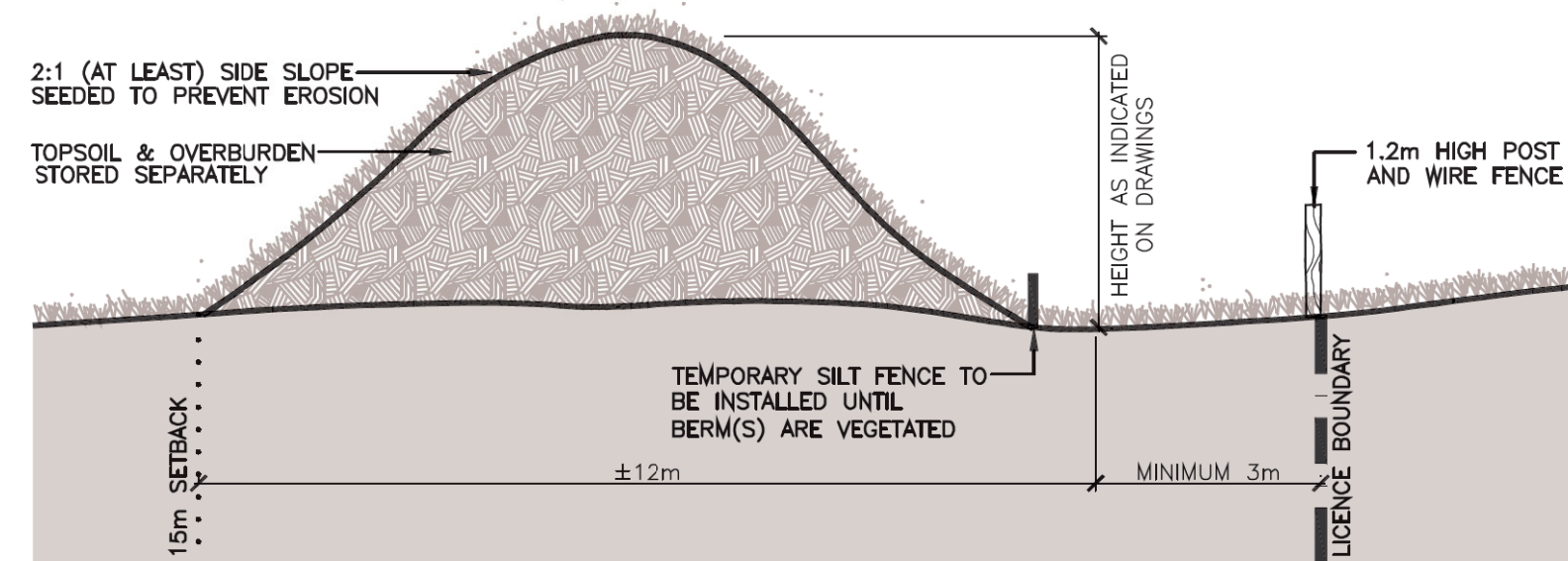
SECTION B-B' VERTICAL SCALE 1:500 HORIZONTAL SCALE 1:2000



SECTION C-C' VERTICAL SCALE 1:500 HORIZONTAL SCALE 1:2000



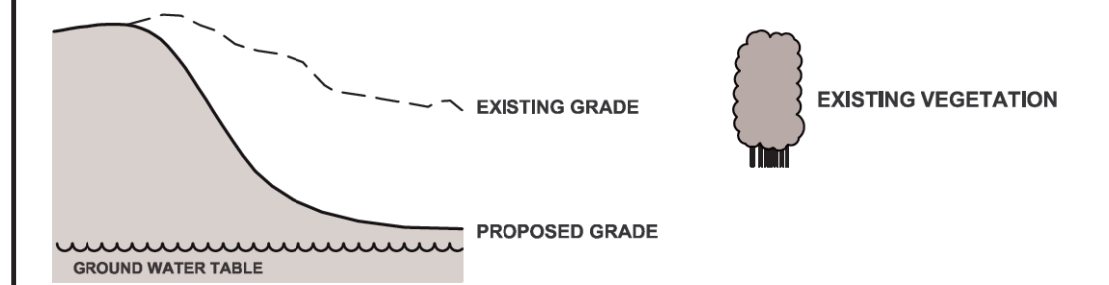
TYPICAL SIDESLOPE REHABILITATION BY BACKFILLING N.T.S.



TYPICAL BERM SECTION N.T.S.

## LEGEND

- 120m INFORMATION BOUNDARY
- BOUNDARY OF AREA TO BE LICENSED
- REGULATORY SETBACK LINE
- LOT/ CONCESSION LINE
- PROPERTY LINE
- LIMIT OF EXTRACTION



## SECTION NOTES

### GENERAL INFORMATION

- SECTION LINES ARE INDICATED ON DRAWINGS 1, 2 AND 5.

NO.	DATE	REVISIONS	OWNER	HM	MM
2	JUNE 2023	PER MNRF COMMENTS			
1	OCT 2022	PER MNRF COMMENTS			

Pre Licence Review

Site Plan Amendments



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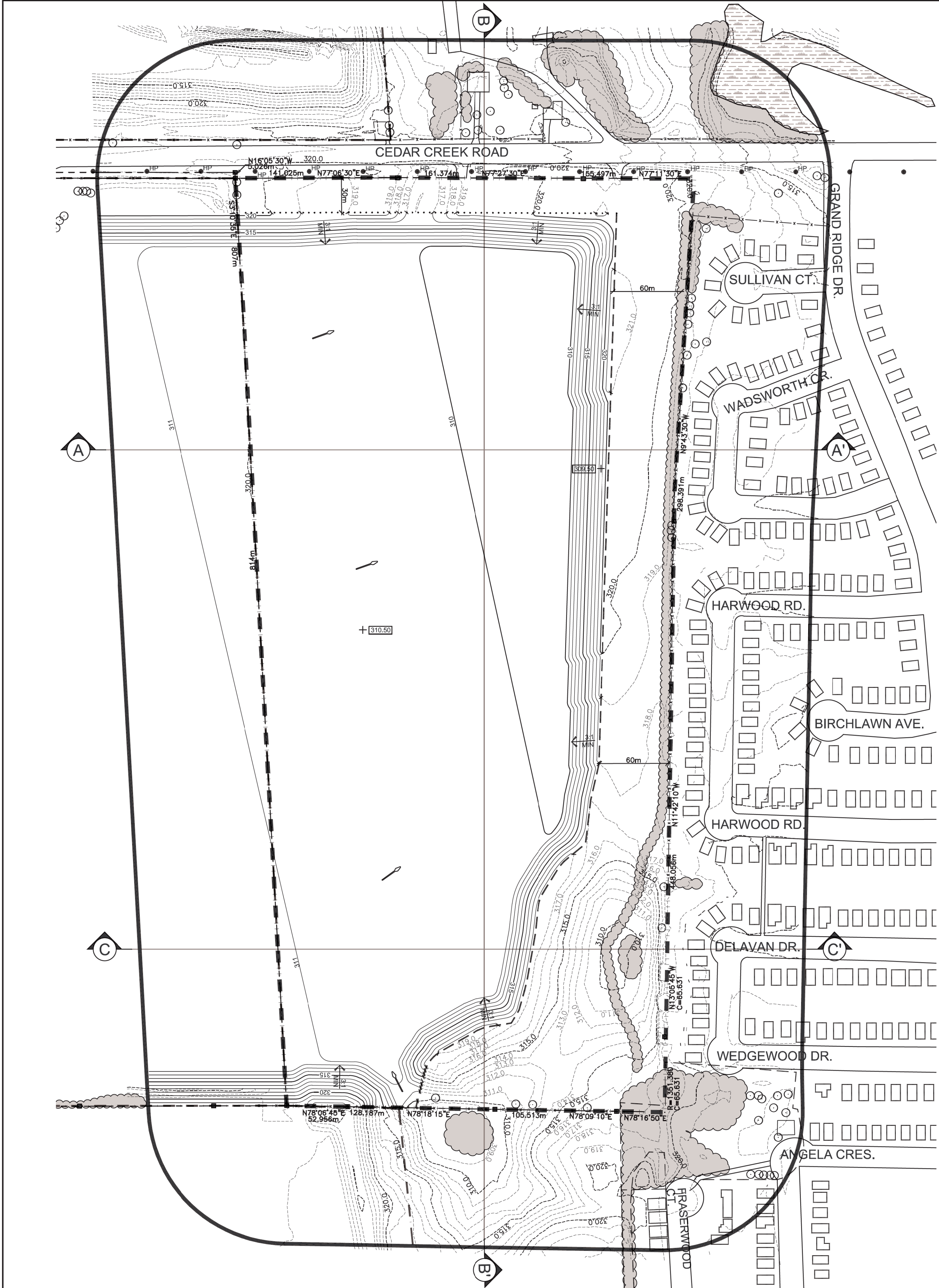
LICENCE No.

PART LOT 14 & 15, CONCESSION 10  
TOWNSHIP OF NORTH DUMFRIES,  
REGIONAL MUNICIPALITY OF WATERLOO

Scale AS SHOWN	North	Stamp
Drawing Status ISSUED FOR APPROVAL		ASSOCIATION OF LANDSCAPE ARCHITECTS OF ONTARIO MEMBER RICHARD M. MANNING
Drawn S.B./ A.C.	Checked G.D.H./R.M.	Issue Date JUNE 2023
Drawing Title SECTIONS AND DETAILS	Project Number 12-10	Drawing Number 4 OF 5

FILE NAME: 12-10/COMP/1210-4-LONG  
PLOT DATE: JUNE 12, 2023





REHABILITATION NOTES

GENERAL INFORMATION

1. REFER TO SHEET 4 OF 5 FOR SECTIONS, SHEETS 2 & 3 OF 5 FOR OPERATIONS AND PHASING DIAGRAMS AND NOTES AND SHEET 5 OF 5 FOR FINAL REHABILITATION AND NOTES.
2. THE PROPERTY SHALL BE REHABILITATED TO AGRICULTURE, AS IT WAS PRIOR TO LICENSING.
- |                      |               |
|----------------------|---------------|
| AGRICULTURE          | 21.2 HECTARES |
| TOTAL REHABILITATION | 21.2 HECTARES |

HYDROGEOLOGICAL INFORMATION

3. THE GROUNDWATER ELEVATION SLOPES ACROSS THE SITE AND WILL REMAIN RELATIVELY UNCHANGED AT 307.2 - 309.3m MASL (REFER TO WATER RESOURCE ASSESSMENT REPORT BY GOLDER ASSOCIATES LTD., DATED APRIL 2021).
4. ALL SURFACE DRAINAGE WILL BE DIRECTED TO THE LOW AREAS REMAINING ON THE PIT FLOOR SO THAT THE WATER CAN INFILTRATE INTO THE SOILS.

SIDESLOPE/MEADOW REHABILITATION INFORMATION

GRADING INFORMATION

5. REHABILITATED SLOPES WITHIN THE LICENCED AREA WILL BE CONSTRUCTED AS SHOWN ON THE CROSS SECTIONS. SLOPES SHALL BE REHABILITATED BY BACKFILLING (MINIMUM 3:1) AND/OR CUT AND FILL METHOD USING AVAILABLE ON-SITE OVERBURDEN AND TOPSOIL AND/OR CLEAN INERT IMPORTED FILL PER OPERATIONAL NOTE 20, PAGE 2. SIDESLOPES MAY BE FLATTENED TO INCREASE AGRICULTURAL VIABILITY. GRADES WILL MATCH ADJACENT LICENCE GRADES.

REFER TO DRAWING 4 OF 5, SECTIONS AND DETAILS, FOR MORE INFORMATION ON BACKFILLING AND CREATION OF REHABILITATED SIDESLOPES.

TOPSOILING INFORMATION

6. ALL AVAILABLE TOPSOIL ON THE SITE WILL REMAIN TO BE USED FOR REHABILITATION OF THIS SITE. PRE-EXTRACTION TOPSOIL DEPTHS ACROSS THE SITE ARE VARIABLE, RANGING FROM 150MM - 500MM. DURING REHABILITATION STORED TOPSOIL WILL BE PLACED TO A DEPTH OF 200MM - 400MM ACROSS THE SITE.

VEGETATION STABILIZATION INFORMATION

7. TOPSOIL SHALL BE SEEDDED WITH A MIXTURE OF GRASSES AND LEGUMES THAT MAY INCLUDE THE FOLLOWING AT A RATE OF APPROXIMATELY 125 kg/ha:
- |             |            |              |
|-------------|------------|--------------|
| BUCKWHEAT   | RED CLOVER | WHITE CLOVER |
| TALL FESCUE | ANNUAL RYE |              |

REHABILITATING TO AGRICULTURAL FIELDS INFORMATION

8. AREAS SHALL BE REHABILITATED BACK TO AGRICULTURE AS FOLLOWS:
- DEEP RIPPING OF AREA TO ELIMINATE COMPACTION (WHERE REQUIRED)
  - SPREADING OF APPROXIMATELY 200mm OF OVERBURDEN AND ROUGH GRADING
  - STONE PICKING OF STONES GREATER THAN 75mm AS REQUIRED
  - SPREADING OF APPROXIMATELY 200-400mm OF TOPSOIL AND FINE GRADING
  - SEED AREAS WITH SEED MIXTURE NOTED ABOVE
  - ALL VEGETATION PLANTED DURING THIS LICENSE WILL BE MAINTAINED IN A HEALTHY, VIGOROUS GROWING CONDITION.
  - USE OF ACCEPTED FARMING PRACTICES (MANURE/FERTILIZER APPLICATIONS) TO RESTORE AND MAINTAIN VEGETATION.
  - IN SUPPORT OF FINAL REHABILITATION, SOIL SAMPLING WILL BE UNDERTAKEN TO ASSESS POST-EXTRACTION SOIL CHARACTERISTICS (E.G., MACRO AND MICRONUTRIENTS, PH, CEC, ORGANIC MATTER, SOIL TEXTURE, STRUCTURE, AND BULK DENSITY ETC.), RELATIVE TO THE DOCUMENTED BASELINE SOIL CHARACTERISTICS, USING AN ACCREDITED LAB FOR ANALYTICAL TESTING. ADJUSTMENTS TO CROPPING PRACTISES AND/OR SOIL AMENDMENTS MAY BE REQUIRED BASED ON THE RESULTS OF THE SOIL TESTING. IN CONSULTATION WITH THE TENANT FARMER, TO ENSURE SUBSTANTIALLY THE SAME AVERAGE SOIL CAPABILITY FOR AGRICULTURE THAT EXISTED PRE-EXTRACTION IS RESTORED.

FINAL REHABILITATION INFORMATION

9. UPON COMPLETION OF EXTRACTION, ALL SCRAP AND EQUIPMENT SHALL BE REMOVED FROM THE SITE. ALL INTERNAL HAUL ROADS SHALL BE REHABILITATED ONCE NO LONGER IN USE FOR EXTRACTION RELATED ACTIVITIES.

IMPORTATION OF EXCESS SOIL

- 10a) EXCESS SOIL, AS DEFINED IN ONTARIO REGULATION 244/97 UNDER THE ENVIRONMENTAL PROTECTION ACT, MAY BE IMPORTED TO THIS SITE TO FACILITATE THE FOLLOWING REHABILITATION:
- CREATION OF 3:1 SLOPES (OR SLOPING RATIO OTHERWISE DESCRIBED FOR FINAL REHABILITATION)
  - TOP DRESSING TO ESTABLISH VEGETATION
- b) LIQUID SOIL, AS DEFINED IN ONTARIO REGULATION 406/19 UNDER THE ENVIRONMENTAL PROTECTION ACT, IS NOT AUTHORIZED FOR IMPORTATION TO THE SITE.
- c) 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.
- d) 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.
- e) 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.
- f) THE CUMULATIVE TOTAL AMOUNT OF EXCESS SOIL THAT MAY BE IMPORTED TO THIS SITE FOR REHABILITATION PURPOSES IS 250,000 M3.

LEGEND

- 120m INFORMATION BOUNDARY
- BOUNDARY OF AREA TO BE LICENCED
- BOUNDARY OF AREA TO BE LICENCED
- REGULATORY SETBACK LINE
- LOT/ CONCESSION LINE
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- EXISTING VEGETATION
- EXISTING WETLAND
- EXISTING 1m CONTOUR LINE
- EXISTING 1m CONTOUR LINE
- PROPOSED 1m CONTOUR LINE
- PROPOSED 1m CONTOUR LINE
- DIRECTION OF SURFACE WATER DRAINAGE
- EXISTING BUILDING
- EXISTING HYDRO POLE
- DIRECTION OF SURFACE WATER DRAINAGE

5	JULY 2023	PER OMAFRA COMMENTS	✓	✓
4	JUNE 2023	PER OMAFRA COMMENTS	✓	✓
3	JUNE 2023	PER OMAFRA & MNRF COMMENTS	✓	✓
2	FEB 2023	PER MNRF COMMENTS	✓	✓
1	OCT 2022	PER MNRF COMMENTS	✓	✓

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Site Plan Amendments



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TOWNSHIP OF NORTH DUMFRIES,  
REGIONAL MUNICIPALITY OF WATERLOO

Scale 1:2000

0 10 50 80m

North



Stamp



Drawing Status

ISSUED FOR APPROVAL

Drawn A.C./S.B.

Checked G.D.H./R.M.

Issue Date JULY 2023

Drawing Title

REHABILITATION PLAN

Project Number

12-10

Drawing Number

5 OF 5