

EXISTING FEATURES NOTES

GENERAL SITE PLAN INFORMATION

1. THIS SITE PLAN CONSIST OF 5 DRAWINGS AND MUST BE READ COLLECTIVELY.
2. ALL MEASUREMENTS SHOWN ON THIS SITE PLAN ARE IN METRES.
3. THIS SITE PLAN IS PREPARED FOR SUBMISSION TO THE MINISTRY OF NATURAL RESOURCES AND FORESTRY UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, PIT BELOW THE WATER TABLE.

LICENCE INFORMATION

4. APPLICANT:
BRANTAM EXCAVATING INC.
9334 GLENDON DRIVE
MOUNT BRYDGES, ON
N0L 1W0

5. TOTAL AREA TO BE LICENCED: 20.7 ha
TOTAL AREA TO BE EXTRACTED: 17.8 ha
TOTAL AREA TO REHABILITATED: 17.8 ha

BASE INFORMATION

6. TOPOGRAPHIC INFORMATION WAS OBTAINED FROM FROM TOPOGRAPHIC SURVEY PROVIDED FIRST BASE SOLUTIONS, DATED SEPTEMBER 2022.
- THE SITE WAS FIELD CHECKED BY HARRINGTON MCAVAN LTD., OCTOBER 18, 2022
- REGULATED AREA LINE OBTAINED FROM UTRCA REGULATED AREA SCREENING MAP, OCTOBER 2022.
- WETLAND BOUNDARIES OBTAINED FROM NATURAL ENVIRONMENT REPORT BY TERRASTORY ENVIRONMENTAL CONSULTING, DATED DECEMBER 2022.
7. ZONING INFORMATION OBTAINED FROM MIDDLESEX COUNTY, MIDDLESEX MAPS ONLINE, OCTOBER 2022. PROPOSED LICENCE IS PRESENTLY ZONED A (AGRICULTURE). A ZBA WILL BE APPLIED FOR TO CHANGE A TO M3 (EXTRACTIVE INDUSTRIAL).

HYDROGEOLOGICAL INFORMATION

8. HYDROGEOLOGICAL INFORMATION INCLUDING GROUNDWATER ELEVATION WAS OBTAINED FROM REPORT BY EXP DATED FEBRUARY 2023.
9. THE WATER TABLE ELEVATION VARIES ACROSS THE PROPERTY BETWEEN 273.42 TO 274.64m ABOVE SEA LEVEL (A.S.L.).
10. SOURCE WATER PROTECTION POLICIES DO NOT APPLY TO THIS SITE (REFER TO HYDROGEOLOGICAL REPORT)

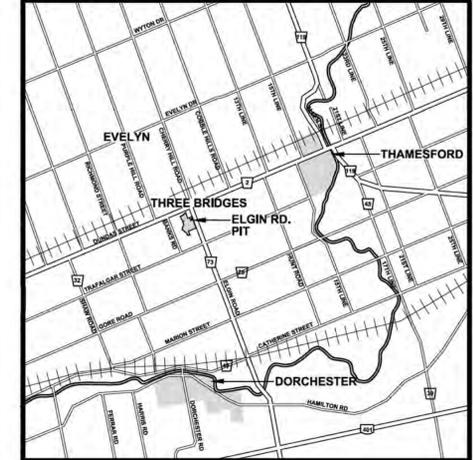
TECHNICAL REPORTS

11. HYDROGEOLOGICAL INFORMATION WAS OBTAINED FROM REPORT BY EXP DATED FEBRUARY 2023 (REFER TO SHEET 4 OF 5 FOR TECHNICAL RECOMMENDATIONS).
12. NATURAL ENVIRONMENT INFORMATION WAS OBTAINED FROM REPORT BY TERRASTORY ENVIRONMENTAL CONSULTING DATED FEBRUARY 2023 (REFER TO SHEET 4 OF 5 FOR TECHNICAL RECOMMENDATIONS).
13. ARCHAEOLOGICAL INFORMATION WAS OBTAINED FROM REPORT BY LINCOLN ENVIRONMENTAL CONSULTING CORP. DATED NOVEMBER 2021 (REFER TO SHEET 4 OF 5 FOR TECHNICAL RECOMMENDATIONS).
14. ACOUSTIC INFORMATION WAS OBTAINED FROM REPORT BY AERCOUSTICS DATED FEBRUARY 2023 (REFER TO SHEET 4 OF 5 FOR TECHNICAL RECOMMENDATIONS).

LEGEND

- BOUNDARY OF PROPOSED LICENCE
- - - BOUNDARY OF EXISTING LICENCED AREA
- 120m INFORMATION BOUNDARY
- PROPERTY LINES
- REGULATORY SETBACK AND LIMIT OF EXTRACTION
- LOT LINE
- UTRCA REGULATED AREA LINE
- EXISTING FENCE
- EXISTING 5m ASL CONTOUR LINE
- EXISTING 1m ASL CONTOUR LINE
- EXISTING SPOT ELEVATION in ASL
- EXISTING VEGETATION
- EXISTING WATER
- EXISTING WETLAND
- LOCATION OF SECTION
- 1 EXISTING BUILDING AND NUMBER
- HP EXISTING HYDRO POLE
- DIRECTION OF SURFACE WATER DRAINAGE
- BH/MW BOREHOLE LOCATION AND NUMBER DRILLED AND MONITORING WELL INSTALLED JUNE 15-16, 2021 BY EXP.
- EXISTING ENTRANCE/EXIT

KEY MAP



BUILDING LIST

No.	DEALERSHIP
1.	DEALERSHIP
2.	WORKSHOP
3.	HOUSE
4.	SHED
5.	HOUSE
6.	GARAGE
7.	SHED
8.	SHED
9.	HOUSE
10.	GARAGE
11.	GARAGE
12.	HOUSE
13.	HOUSE
14.	HOUSE
15.	GARAGE
16.	GARAGE
17.	HOUSE
18.	HOUSE
19.	BARN
20.	SHED

NO.	DATE	REVISIONS	OWNER	DATE	NO.	DATE	REVISIONS	OWNER	DATE

Pre Licence Review Site Plan Amendments

41 Main Street, Unit 102
Unionville, Ontario L3R 2E5
Tel: 905-294-8282 Fax: 905-294-7023
www.harringtonmccavan.com

Project Name
BRANTAM EXCAVATING ELGIN ROAD PIT

LICENSEE SIGNATURE: [Redacted]

PART LOT 13 & 14, CONCESSION 1 NRT
MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER, COUNTY OF MIDDLESEX)

Scale 1:2000 North Stamp

Drawing Status SUBMITTED FOR APPROVAL

Drawn SB Checked RM Issue Date FEB 2023

Drawing Title **EXISTING FEATURES PLAN**

Project Number **22-22**

Drawing Number **1 OF 5**

SITE PLAN VARIANCES

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

ITEM	SECTION
1. SETBACK IS REDUCED TO 0m ALONG THE NORTH BOUNDARY, ADJACENT LAND IS OWNED BY LICENCEE. SETBACK IS REDUCED TO 0m ALONG EAST BOUNDARY AROUND JOHN DEER DEALERSHIP PER AGREEMENT WITH ADJACENT LANDOWNER. SETBACK IS REDUCED TO 0m ALONG WEST BOUNDARY BETWEEN THE SIGNIFICANT WETLAND SETBACK AND SETBACK AROUND NORTHWEST RESIDENCE, ADJACENT LAND IS OWNED BY LICENCEE.	0.13(1)(i)
2. STOCKPILING MAY OCCUR WITHIN 30m OF THE NORTH BOUNDARY, ADJACENT LANDS OWNED BY LICENCEE.	0.13(1)(j)
3. FENCING WILL BE OMITTED FROM THE NORTH BOUNDARY, EXISTING MUNICIPAL DRAIN PREVENTS ACCESS AND ALONG THE WEST BOUNDARY PER AGREEMENT WITH ADJACENT LANDOWNER AND LICENSEE OWNS ADJACENT LAND.	0.13(3)a

OPERATIONS NOTES

GENERAL INFORMATION

1. THIS PLAN DEPICTS A SCHEMATIC OPERATIONS AND REHABILITATION SEQUENCE FOR THIS PROPERTY BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION. PHASES SHOWN ARE SCHEMATIC AND WILL BE OPERATED ACCORDING TO 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. DEMAND FOR CERTAIN PRODUCTS OR BLENDING OF MATERIALS WILL REQUIRE SOME DEVIATION IN THE EXTRACTION AND REHABILITATION PHASING. ANY DEVIATIONS FROM THE OPERATIONS SEQUENCE SHOWN WILL REQUIRE APPROVAL FROM NDMRRP.

2. SITE PLAN VARIANCES ARE LISTED IN THE SITE PLAN VARIANCE TABLE SHOWN ON THIS PAGE.

EXTRACTION/PROCESSING/HAULING INFORMATION
 3. TOTAL AREA TO BE EXTRACTION IS 17.8 HECTARES.
 4. MAXIMUM NUMBER OF TONNES OF AGGREGATE TO BE REMOVED FROM THE SITE IN ANY CALENDAR YEAR IS 500,000 TONNES.

EXTRACTION OF SAND AND GRAVEL ABOVE WATER TABLE WILL TAKE PLACE IN TWO BENCHES, WITH A MAXIMUM HEIGHT OF 4 METRES AND WILL COMPLY WITH OHS REGULATIONS REGARDING FACE HEIGHTS. THE GROUNDWATER TABLE IS ESTIMATED TO BE BETWEEN 273.42 TO 274.64m ASL (SEE REPORT BY EXP). FRONT END LOADERS WILL BE USED TO EXTRACT MATERIAL AND HAUL TRUCKS OR CONVEYORS WILL CARRY MATERIAL VIA HAUL ROADS TO THE PLANT FOR FURTHER PROCESSING. REFER TO SECTIONS A-A, B-B, AND C-C ON DRAWING 4 OF 5 FOR FURTHER DETAILS.

PORTABLE PROCESSING EQUIPMENT, FOR CRUSHING AND SCREENING WILL BE USED ON SITE AND WILL BE LOCATED ON THE PIT FLOOR CLOSE TO THE PIT FACE AT START UP. IN ADDITION TO PROCESSING, SITE ACTIVITIES WILL INCLUDE STRIPPING AND REHABILITATION. OPERATIONAL EQUIPMENT MAY INCLUDE TRUCKS, LOADERS, EXCAVATOR, BACKHOES, BULLDOZERS, SCRAPERS, CONVEYORS, WASH PLANTS, AND OTHER RELATED EQUIPMENT. PROCESSING EQUIPMENT, STACKERS AND PRODUCT STOCKPILES WILL NOT EXCEED 15 METRES IN HEIGHT AND WILL BE LOCATED IN THE AREAS SHOWN AND/OR CLOSE TO PIT FACES.

MATERIAL FROM OTHER PROPERTIES MAY BE IMPORTED INTO THE SITE FOR BLENDING, CUSTOM PRODUCTS AND/OR RESALE. THIS MAY INCLUDE AGGREGATE AND/OR PEAT AND TOPSOIL (IN AREA 2).
 5. EQUIPMENT, SCRAP AND MACHINERY ASSOCIATED WITH THE EXTRACTION OPERATIONS WILL BE REMOVED UPON COMPLETION OF EXTRACTION.

HYDROGEOLOGICAL INFORMATION

6. THE WATER TABLE ELEVATION VARIES ACROSS THIS LICENCE FROM APPROXIMATELY 273.42 TO 274.64m ABOVE SEA LEVEL (A.S.L.), BASED ON THE EXP HYDROGEOLOGICAL REPORT (SEE ABOVE). REFER TO SECTIONS ON SHEET 4 OF 5.

7. SURFACE DRAINAGE WILL BE DIRECTED TO POND/LOW AREAS FOR WATER TO INFILTRATE INTO THE GRANULAR MATERIALS ON THE PIT FLOOR. THERE WILL BE NO OFF-SITE DITCHING/DISCHARGE.

NOISE MITIGATION INFORMATION

8. HOURS OF OPERATION:
 SITE PREPARATION AND REHABILITATION: 07:00-19:00 WEEKDAYS; 07:00-NOON SATURDAYS
 EXCAVATION AND PROCESSING: 07:00-19:00 WEEKDAYS; 07:00-NOON SATURDAYS
 SHIPPING: 07:00-19:00 WEEKDAYS; 07:00-NOON SATURDAYS

AIR QUALITY INFORMATION

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

SITE MANAGEMENT INFORMATION

10. 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

11. 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 WIRE TO COMPLY WITH THE AGGREGATE RESOURCES ACT WHERE REQUIRED. UNFENCED BOUNDARIES SHALL BE DEMARCATED WITH HIGHLY VISIBLE MARKER POSTS AT INTERVISIBLE INTERVALS. SILT FENCE CONTROL FENCING WILL BE CONSTRUCTED ONCE STRIPPING OCCURS WITHIN 50m OF THE SETBACK ADJACENT TO THE HUMPHREY DRAIN AND THE NATURAL FEATURES AND SHALL BE MAINTAINED UNTIL ADJACENT AREA IS STABLE AND VEGETATED. ALL FENCING SHALL BE MAINTAINED.

TOPSOIL/SUBSOIL/OVERBURDEN STORAGE INFORMATION

12. TOPSOIL AND OVERBURDEN SHALL BE STRIPPED AND STORED SEPARATELY IN BERMS WHERE SHOWN AND IN THE STOCKPILING AREA AS SHOWN.

BERM INFORMATION

13. BERMS SHALL BE CONSTRUCTED AS SPECIFIED IN THE AERACOUSTIC'S NOISE ASSESSMENT REPORT DATED FEBRUARY 2023 AND SHOWN ON OPS PLAN. BERMS SHALL NOT EXCEED 2'. REFER TO TYPICAL BERM CROSS SECTION ON DRAWING 3 OF 5. ALL BERMS SHALL BE SEED (USING GRASS/LEGUME MIXTURE, SEE REHABILITATION PLAN, NOTE #7) IMMEDIATELY UPON COMPLETION TO MINIMIZE NOISE, DUST AND EROSION.

14. ON COMPLETION OF THE BERMS, EXCESS ON-SITE OVERBURDEN WILL BE USED TO PROGRESSIVELY BACKFILL AND REHABILITATE THE SITE. TOPSOIL CAN BE TEMPORARILY STOCKPILED ON THE PIT FLOOR.

SCRAP STORAGE INFORMATION

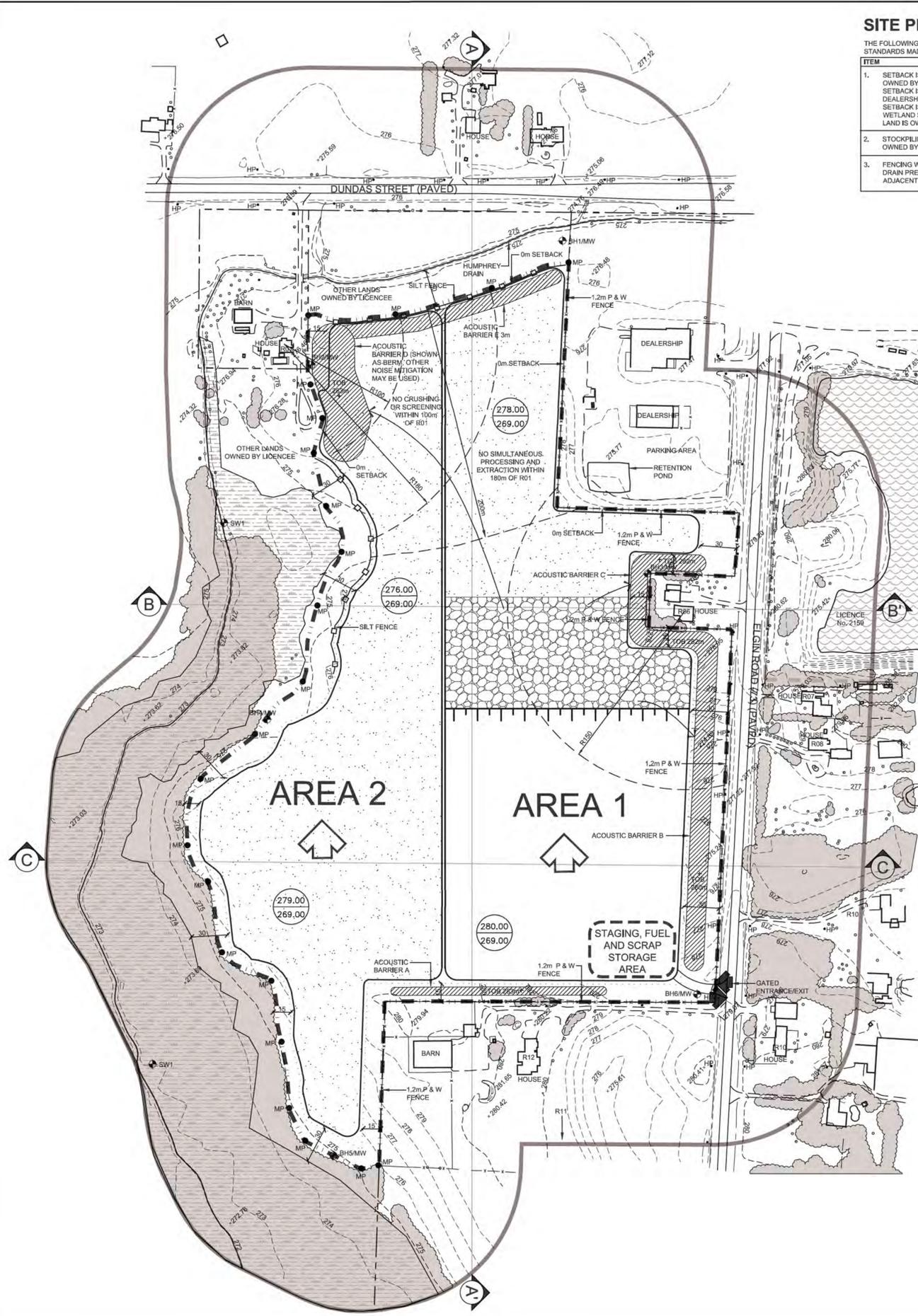
15. ALL SCRAP, USED MACHINERY AND STUMPS GENERATED THROUGH THE OPERATIONS WITHIN THIS LICENCE WILL BE STORED IN THE STAGING AREA AS SHOWN. A MINIMUM OF 30m FROM THE BOUNDARY OF THE SITE AND NOT WITHIN 30m OF ANY BODY OF WATER AND SHALL BE DISPOSED OF ON AN ONGOING BASIS. STUMPS/ WOODY MATERIAL MAY BE CHIPPED AND USED FOR SOIL ENHANCEMENT DURING PROGRESSIVE REHABILITATION. TREES WILL BE HARVESTED AND SOLD AS LUMBER OR UTILIZED FOR FIREWOOD AND/ OR THEIR BEST USE. UPON COMPLETION OF EXTRACTION, ALL SCRAP EQUIPMENT AND USED MACHINERY SHALL BE REMOVED.

PETROLEUM STORAGE INFORMATION

16. FUEL, OIL, RADIATOR AND HYDRAULIC FLUID, AND OTHER CHEMICALS NEEDED FOR THE MAINTENANCE AND FUNCTIONING OF ON-SITE AGGREGATE PROCESSING EQUIPMENT SHALL BE APPROPRIATELY STORED IN ABOVE-GROUND CONTAINERS AND SHALL MEET THE REQUIREMENTS OF THE GASOLINE HANDLING ACT, AS AMENDED, AND THE GASOLINE HANDLING CODE AND REGULATIONS, AS AMENDED BY THE TECHNICAL STANDARDS AND SAFETY ACT (TSSA) AND LIQUID FUELS HANDLING CODE AND IN ACCORDANCE WITH THE MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS CHEMICAL STORAGE GUIDELINES. ALL REFUELING SHALL BE WITHIN A CONTAINMENT PAD. ALL SPILLS TO THE ENVIRONMENT MUST BE REPORTED TO THE SPILLS ACTION CENTRE OF MECP. ANY SPILL SHALL BE REMOVED AND DISPOSED OF AT AN APPROPRIATE MECP APPROVED FACILITY.

LEGEND

	BOUNDARY OF PROPOSED LICENCE		EXISTING BUILDING AND NUMBER
	BOUNDARY OF EXISTING LICENCED AREA		EXISTING HYDRO POLE
	120m INFORMATION BOUNDARY		DIRECTION OF SURFACE WATER DRAINAGE
	PROPERTY LINES		BOREHOLE LOCATION AND NUMBER DRILLED AND MONITORING WELL INSTALLED JUNE 15-16, 2021
	REGULATORY SETBACK AND LIMIT OF EXTRACTION		ENTRANCE/ EXIT
	EXISTING FENCE		DIRECTION OF EXTRACTION
	EXISTING 5m ASL CONTOUR LINE		DIRECTION OF TOPSOIL AND OVERBURDEN MOVEMENT
	EXISTING 1m ASL CONTOUR LINE		LOCATION OF NOISE RECEPTOR
	EXISTING SPOT ELEVATION IN ASL		EXISTING ELEVATION PROPOSED ELEVATION
	EXISTING VEGETATION		PROPOSED MARKER POST
	EXISTING WETLAND		
	EXISTING OPEN WATER		
	EXTRACTION FACE		
	BERM (MIN. HEIGHT AS SHOWN)		
	UNDISTURBED AREA		
	AREA STRIPPED OF TOPSOIL AND OVERBURDEN		
	SILT FENCE		
	PROPOSED MARKER POST		



PHASE A PHASE A NOTES

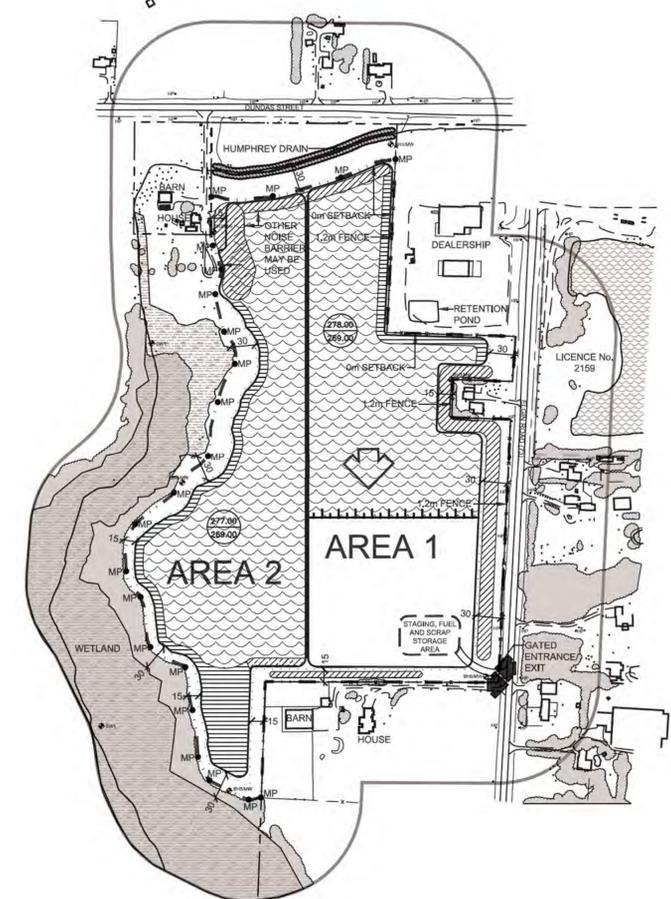
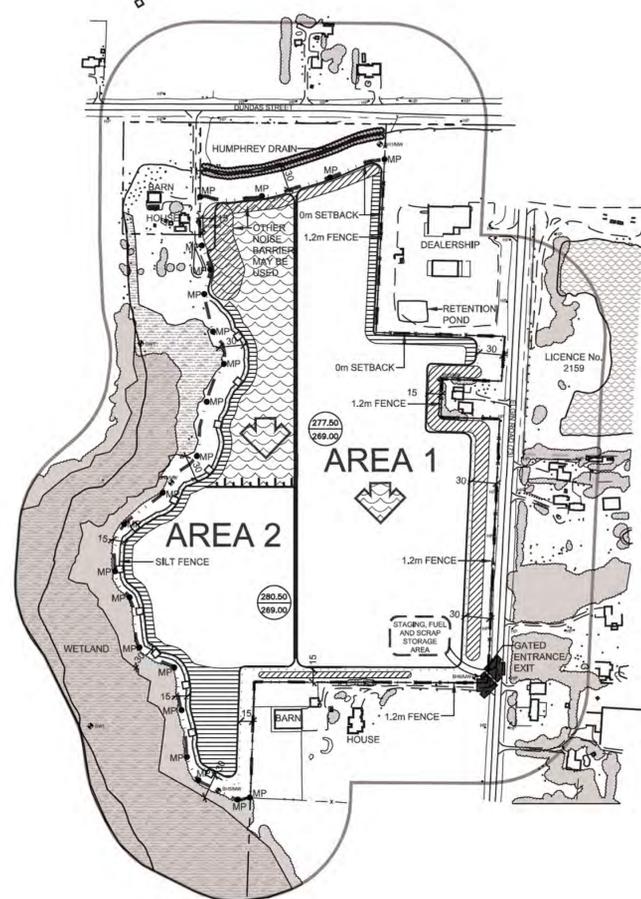
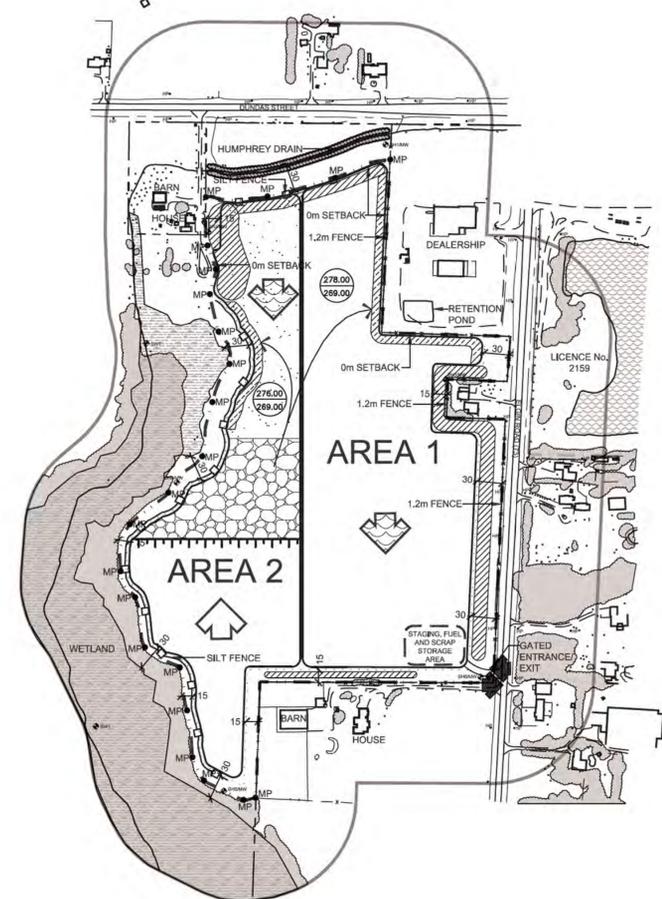
1. ESTABLISH THE ENTRANCE EXIT AND HAUL ROAD INTO THE SITE AT ELGIN ROAD, ACCORDING TO THE APPROPRIATE MUNICIPAL STANDARDS.
2. PRIOR TO ANY ON SITE OPERATIONS, CONSTRUCT OR UPGRADE THE FENCING ON THE LICENCED BOUNDARIES TO THE STANDARDS OF THE AGGREGATE RESOURCES ACT (1.2m HIGH WIRE FENCE), EXCEPT WHERE SITE PLAN VARIANCES ARE NOTED AND INSTALL MARKER POSTS. ALL FENCING SHALL BE MAINTAINED.
3. PRIOR TO EXTRACTION IN AREA 1, STRIP TOPSOIL AND OVERBURDEN SEPARATELY AND USE THE MATERIALS TO CONSTRUCT ACOUSTICAL BARRIERS A, B, AND C TO RECOMMENDED SPECIFICATIONS FOR PHASE A. EXCESS OVERBURDEN AND TOPSOIL MAY BE STORED IN PILES ON THE PIT FLOOR.
4. BEGIN ABOVE WATER EXTRACTION OF AREA 1 IN DIRECTION SHOWN. STOCKPILING AREA MAY BE TEMPORARILY LOCATED NEAR THE PIT FACE DURING THE INITIAL EXCAVATION OF AGGREGATE.
5. PRIOR TO EXTRACTION WITHIN 200m OF NORTH EXTRACTION LIMIT CONSTRUCT ACOUSTIC BARRIER D AND E TO RECOMMENDED SPECIFICATIONS.
6. UNDISTURBED PORTIONS OF AREAS 1 AND 2 REMAIN IN AGRICULTURAL USE.
7. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS GROWING CONDITION

Pre Licence Review Site Plan Amendments

Harrington McAvan Ltd
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Project Name
BRANTAM EXCAVATING ELGIN ROAD PIT
 LICENSEE SIGNATURE [Redacted]
 PART LOT 13 & 14, CONCESSION 1 NRT
 MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER, COUNTY OF MIDDLESEX)

Scale 1:2000	North	Stamp
Drawing Status SUBMITTED FOR APPROVAL		
Drawn SB	Checked RM	Issue Date FEB 2023
Drawing Title OPERATIONAL PLAN PHASE A		Project Number 22-22
		Drawing Number 2 OF 5



PHASE B

1. COMPLETE ABOVE WATER EXTRACTION OF AREA 1.
2. STRIP TOPSOIL AND OVERBURDEN SEPARATELY FROM AREA 2 AND USE THE MATERIAL TO BEGIN PROGRESSIVE REHABILITATION OF AREA 1 SIDE SLOPES AS SHOWN. EXCESS MATERIAL MAY BE STOCKPILED ON THE PIT FLOOR.
3. BEGIN ABOVE WATER EXTRACTION OF AREA 2 IN DIRECTION SHOWN. SHIP MATERIAL TO TEMPORARY PLANT SITE (NOT SHOWN, PORTABLE PROCESSING EQUIPMENT TO BE USED).
4. BEGIN REHABILITATION OF AREA 2 SIDE SLOPES AS EXTRACTION PROCEEDS SOUTH USING MATERIAL STRIPPED IN AREA 2.
5. UNDISTURBED PORTION OF AREA 2 TO REMAIN IN AGRICULTURAL USE.
6. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

PHASE C

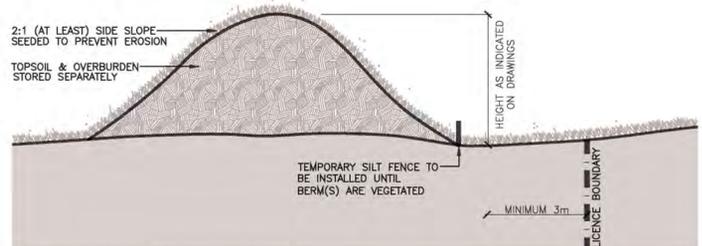
1. COMPLETE ABOVE WATER EXTRACTION OF AREA 2.
2. COMPLETE REHABILITATION OF AREAS SHOWN.
3. BEGIN BELOW WATER EXTRACTION OF AREA 2 IN DIRECTION SHOWN. MATERIAL EXTRACTED FROM BELOW WATER WILL BE PLACED IN WINDROWS ON THE PIT FLOOR TO DRAIN BEFORE BEING TRANSPORTED FOR PROCESSING. SHIP MATERIAL TO TEMPORARY PLANT SITE (NOT SHOWN, PORTABLE PROCESSING EQUIPMENT TO BE USED).
4. COMPLETE BELOW WATER EXTRACTION OF AREA 2.
5. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

PHASE D

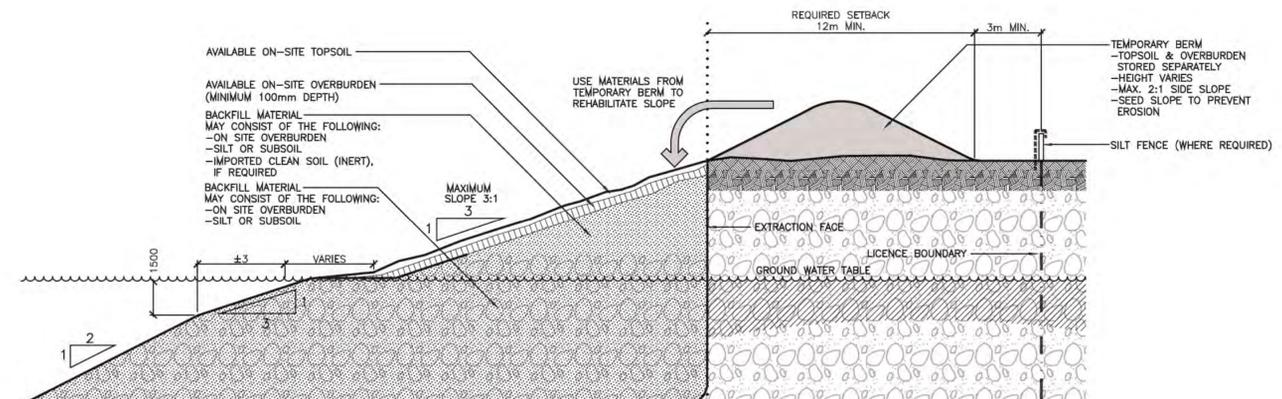
1. BEGIN BELOW WATER EXTRACTION OF AREA 1 IN DIRECTION SHOWN.
2. CONTINUE PROGRESSIVE REHABILITATION OF AREA 2 SIDESLOPES AS SHOWN.
3. COMPLETE BELOW WATER EXTRACTION IN AREA 1.
4. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

PHASE E (NOT SHOWN)

1. REMOVE ALL EQUIPMENT, STRUCTURES, STOCKPILES AND SCRAP FROM THE SITE AND REHABILITATE ALL HALL ROADS USING TOPSOIL AND OVERBURDEN STOCKPILED IN BERMS.
2. COMPLETE REHABILITATION OF ALL REMAINING AREAS USING MATERIAL IN ACOUSTIC BERMS.
3. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.



TYPICAL BERM SECTION N.T.S.



TYPICAL SIDESLOPE REHABILITATION BY BACKFILLING N.T.S.

LEGEND

	BOUNDARY OF PROPOSED LICENCE		EXISTING BUILDING
	BOUNDARY OF EXISTING LICENCE AREA		EXISTING HYDRO POLE
	120m INFORMATION BOUNDARY		BOREHOLE LOCATION AND NUMBER DRILLED AND MONITORING WELL INSTALLED JUNE 15-16, 2021
	PROPERTY LINES		ENTRANCE/EXIT
	REGULATORY SETBACK AND LIMIT OF EXTRACTION		DIRECTION OF EXTRACTION
	LOT LINE		DIRECTION OF TOPSOIL AND OVERBURDEN MOVEMENT
	EXISTING FENCE		LOCATION OF NOISE RECEPTOR
	EXISTING 5m ASL CONTOUR LINE		EXISTING ELEVATION
	EXISTING 1m ASL CONTOUR LINE		PROPOSED ELEVATION
	EXISTING SPOT ELEVATION IN ASL		PROPOSED MARKER POST
	EXISTING VEGETATION		LOCATION OF SECTION
	EXISTING WETLAND		
	EXISTING OPEN WATER		
	EXTRACTION FACE		
	BERM (MIN. HEIGHT AS SHOWN)		
	UNDISTURBED AREA		
	AREA STRIPPED OF TOPSOIL AND OVERBURDEN		
	PROGRESSIVE REHABILITATION		
	COMPLETED REHABILITATION		
	SILT FENCE		

NO.	DATE	REVISIONS	OWNER	DATE	NO.	DATE	REVISIONS	OWNER	DATE

Pre Licence Review Site Plan Amendments

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McAvan Ltd

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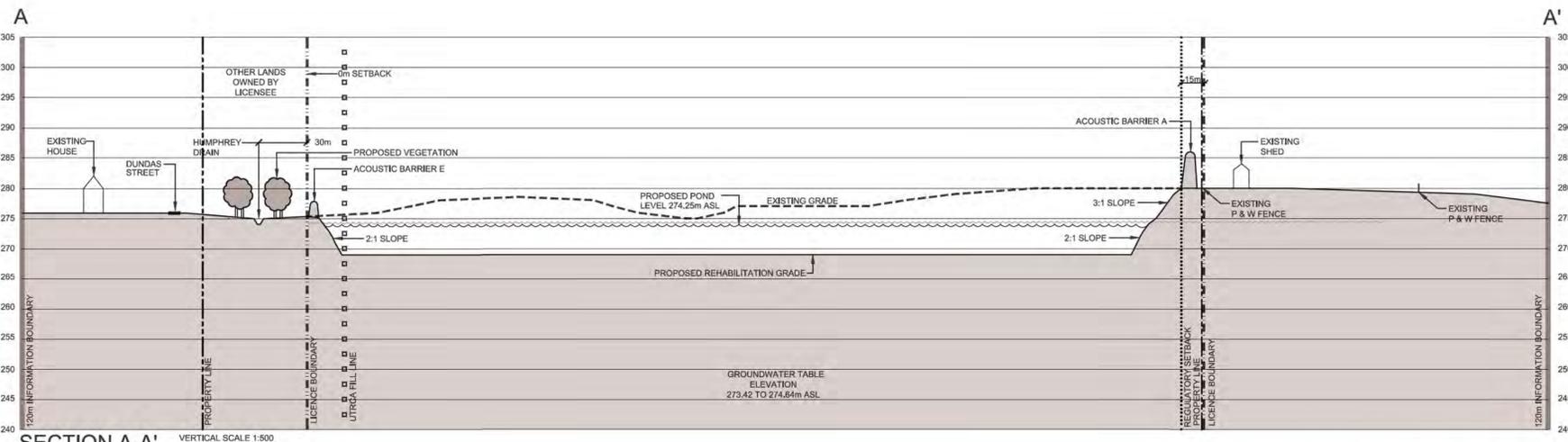
Project Name

BRANTAM EXCAVATING ELGIN ROAD PIT

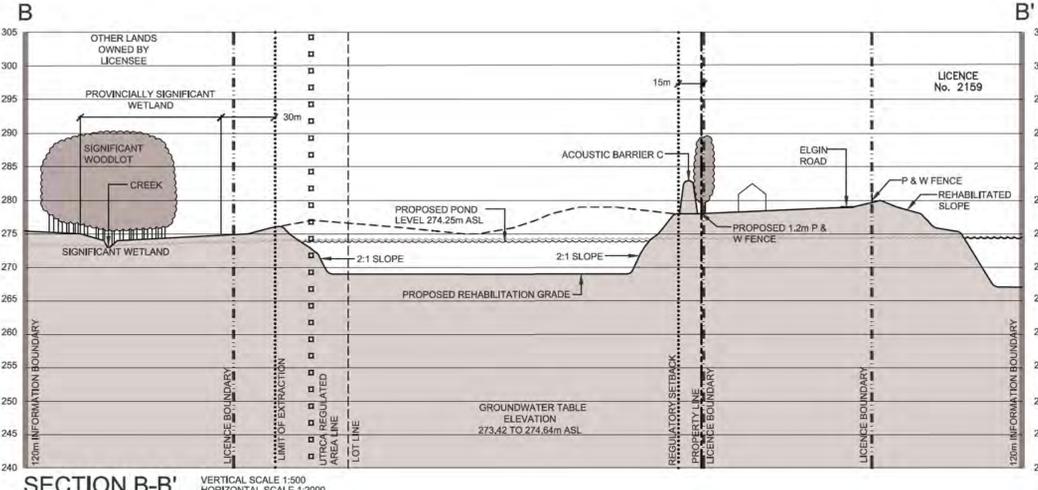
LICENSEE SIGNATURE: [REDACTED]

PART LOT 13 & 14, CONCESSION 1 NRT
MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER, COUNTY OF MIDDLESEX)

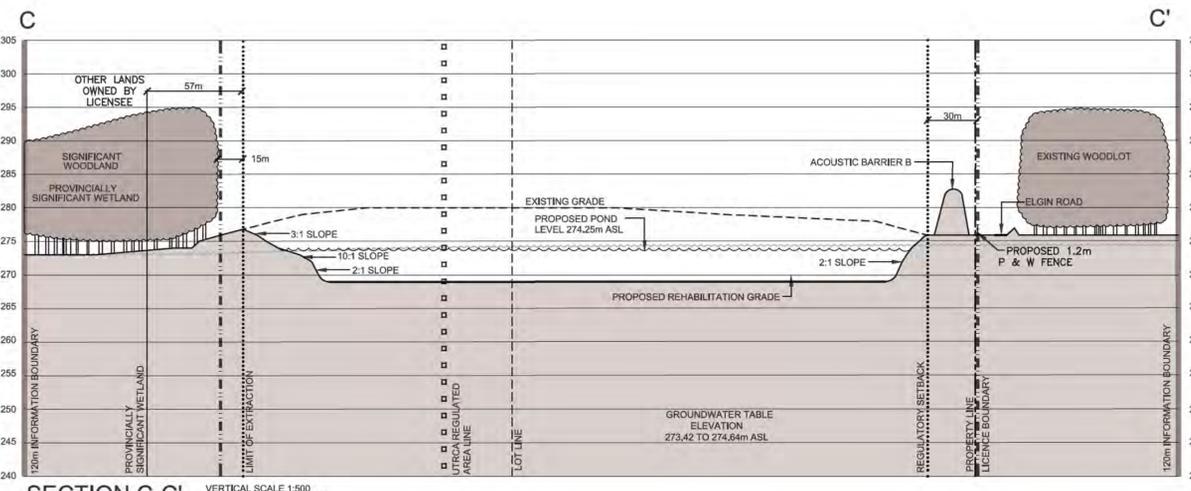
Scale 1:4000	North	Stamp
Drawing Status PRELIMINARY FOR DISCUSSION	Drawn SB Checked RM	Issue Date FEB 2023
Drawing Title OPERATIONAL PLAN PHASES B-E AND DETAILS	Project Number 22-22	Drawing Number 3 OF 5



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

TECHNICAL RECOMMENDATIONS

THE FOLLOWING ARE THE TECHNICAL RECOMMENDATIONS FROM ALL OF THE EXPERTS' REPORTS AS OF MARCH 2022. ADDITIONAL RECOMMENDATIONS MAY BE INCLUDED AS A RESULT OF THE LICENCE REVIEW PROCESS.

NATURAL ENVIRONMENT ASSESSMENT - TERRASTORY ENVIRONMENTAL CONSULTING INC. DATED FEBRUARY 2023

PROVINCIAALLY SIGNIFICANT WETLAND AND OTHER ADJOINING WETLANDS
1. THE 30 M SETBACK FROM THE PSW AND OTHER ADJOINING WETLANDS WILL BE WELL-MARKED UNDER THE DIRECTION OF A QUALIFIED ECOLOGIST PRIOR TO THE COMMENCEMENT OF ADJACENT PIT OPERATIONS.

2. OPERATIONAL ACTIVITIES AND OTHER DISTURBANCES ARE PROHIBITED WITHIN THE 30 M SETBACK FROM THE WETLAND, WHICH WILL BECOME NATURAL, SELF-SUSTAINING VEGETATION (NO MOW OR AGRICULTURAL USES).

SIGNIFICANT WOODLANDS
3. THE 15 M SETBACK FROM THE DRIPLINE OF THE SIGNIFICANT WOODLAND WILL BE WELL-MARKED UNDER THE DIRECTION OF A QUALIFIED ECOLOGIST PRIOR TO THE COMMENCEMENT OF ADJACENT PIT OPERATIONS.

4. OPERATIONAL ACTIVITIES AND OTHER DISTURBANCES ARE PROHIBITED WITHIN THE 15 M SETBACK FROM THE WETLAND BOUNDARY, WHICH WILL BECOME NATURAL, SELF-SUSTAINING VEGETATION (NO MOW OR AGRICULTURAL USES).

5. ANY NECESSARY LIGHTING TO SUPPORT PIT OPERATIONS WILL BE DIRECTED AWAY FROM THE SIGNIFICANT WOODLAND (I.E., EASTWARD OR NORTHWARD) TO THE EXTENT PRACTICABLE.

HABITAT OF ENDANGERED AND THREATENED SPECIES
6. ALL AGGREGATE OPERATIONS WITHIN THE SITE WILL BE UNDERTAKEN CONSISTENT WITH THE DOCUMENT TITLED "BEST MANAGEMENT PRACTICES FOR THE PROTECTION, CREATION AND MAINTENANCE OF BANK SWALLOW HABITAT IN ONTARIO" (OMNRF 2017).

7. ANY NECESSARY REMOVAL OF VEGETATION TO SUPPORT PIT OPERATIONS WILL BE COMPLETED OUTSIDE THE PRIMARY BIRD NESTING AND BAT ACTIVITY PERIODS (I.E., TO BE COMPLETED BETWEEN OCTOBER 1 AND MARCH 31).

FISH HABITAT
8. THE 30 M SETBACK FROM THE BANKFULL CHANNEL OF CADDY CREEK / HUMPHREY MUNICIPAL DRAIN WILL BE WELL-MARKED UNDER THE DIRECTION OF A QUALIFIED ECOLOGIST PRIOR TO THE COMMENCEMENT OF ADJACENT PIT OPERATIONS.

9. OPERATIONAL ACTIVITIES AND OTHER DISTURBANCES ARE PROHIBITED WITHIN THE 30 M SETBACK FROM CADDY CREEK / HUMPHREY MUNICIPAL DRAIN, WHICH WILL BECOME NATURAL, SELF-SUSTAINING VEGETATION (NO MOW OR AGRICULTURAL USES).

10. EROSION AND SEDIMENT CONTROL MEASURES (E.G., INSTALLATION OF SILT FENCING) WILL BE IMPLEMENTED OUTSIDE THE 30 M SETBACK OF CADDY CREEK / HUMPHREY MUNICIPAL DRAIN AND BE REGULARLY MAINTAINED AS REQUIRED TO FUNCTION EFFECTIVELY.

11. A RIPARIAN CORRIDOR ENHANCEMENT PLAN FOR THE 30 M SETBACK FROM THE CADDY CREEK / HUMPHREY MUNICIPAL DRAIN WILL BE PREPARED FOR THE AREA NORTH OF THE SITE, WHICH INCORPORATES THE FOLLOWING ELEMENTS (MINIMUM):
• TREE AND SHRUB INSTALLATIONS (NATIVE TO MIDDLESEX COUNTY) TO BE INSTALLED WITHIN 5 M OF THE BANKFULL CHANNEL.
• APPLICATION OF A NATIVE SEED MIXTURE SUITED TO MOIST, UPLAND CONDITIONS TO COVER THE 30 M SETBACK.
• IMPLEMENTATION OF A MONITORING PLAN FOR THE PURPOSES OF DETERMINING THE SUCCESS OF THE WOODY PLANT INSTALLATIONS AND SEED APPLICATION FOR A PERIOD OF NO LESS THAN THREE (3) GROWING SEASONS.

12. A SURFACE WATER MONITORING PLAN WILL BE PREPARED BY A QUALIFIED PROFESSIONAL FOR CADDY CREEK / HUMPHREY MUNICIPAL DRAIN TO ASSESS THERMAL CONDITIONS AND IS TO BE IMPLEMENTED DURING THE LIFETIME OF OPERATIONS.

HYDROGEOLOGICAL ASSESSMENT - EXP SERVICE INC. - FEBRUARY 2023

1. IN ORDER TO MAINTAIN THE WATER LEVELS IN THE NATURAL FEATURES ON SITE, THE FINAL POND WATER LEVEL SHOULD REMAIN HIGHER THAN THE LEVELS OBSERVED IN THE DRAIN AND PSW TO PREVENT SURFACE WATER RUNOFF FROM THE FEATURES TOWARDS THE PROPOSED PIT. TO ALLOW FOR SEASONAL VARIABILITY AND HIGHER WATER LEVELS DURING THE WET SEASON, THE POND SHALL BE ABLE TO CONTAIN FINAL WATER LEVELS OF 274.25 M AMSL.

2. MEASURES TO MITIGATE TEMPERATURE IMPACTS TO THE GROUNDWATER AND NATURAL FEATURES ON SITE SHALL INCLUDE:
• MAINTAINING A SUFFICIENT BUFFER BETWEEN THE FEATURES AND THE PROPOSED POND;
• APPLYING PLANTING STRATEGIES TO SHADE THE PROPOSED POND AND/OR DRAIN;
• COMPLETING AN ON-GOING MONITORING PROGRAM THROUGHOUT EXTRACTION ACTIVITIES.

3. RESIDENTS WITHIN 150 M OF THE SITE SHALL BE PROVIDED WITH A 24-HOUR EMERGENCY CONTACT INFORMATION TO FACILITATE REPORTING OF PERCEIVED WATER SUPPLY IMPACTS.

4. DURING THE SITE GRADING WORK, SUITABLE SEDIMENTATION CONTROLS WILL BE REQUIRED TO HELP CONTROL AND REDUCE THE TURBIDITY OF RUNOFF WATER.

5. A BMP AND SPILL CONTINGENCY PLAN (INCLUDING A SPILL ACTION RESPONSE PLAN) SHALL BE IN PLACE FOR FUEL HANDLING, STORAGE AND ONSITE EQUIPMENT MAINTENANCE ACTIVITIES TO MINIMIZE THE RISK OF CONTAMINANT RELEASES AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES.

6. THE EXISTING MONITORING WELLS AND SURFACE WATER STATIONS LOCATED AROUND THE PERIMETER OF THE PROPOSED PIT SHALL BE MAINTAINED AND PROTECTED DURING OPERATIONS.

7. IN ORDER TO ASSESS POTENTIAL IMPACTS TO GROUNDWATER AND SURFACE WATER ON SITE, A PROPOSED MONITORING PROGRAM ON AN ADJUSTED FREQUENCY WILL BE IMPLEMENTED IN THE EXISTING MONITORING WELL AND SURFACE WATER STATIONS INCLUDING MONITORING WATER LEVELS, TURBIDITY, TSS AND WATER TEMPERATURE. DURING THE FIRST YEAR OF OPERATIONS, MONITORING WILL BE COMPLETED ON A MONTHLY BASIS, IN THE SECOND YEAR OF OPERATIONS, MONITORING WILL BE COMPLETED ON A QUARTERLY BASIS UNTIL OPERATIONS ARE CONCLUDED.

NOISE ASSESSMENT - AERACOUSTICS - DATED FEBRUARY 2023

1. THE PROPOSED HOURS OF EXTRACTION, PROCESSING, AND SHIPPING OPERATIONS SHALL BE LIMITED TO THE DAYTIME HOURS ONLY (07:00 TO 19:00).

2. THE EXTRACTION, PROCESSING, AND SHIPPING EQUIPMENT OPERATING IN THE PIT IS LIMITED TO:
• ONE EXTRACTION LOADER OR SURGE PILE LOADER
• ONE DRAG LINE OR EXCAVATOR
• ONE SHIPMENT LOADER
• ONE PROCESSING PLANT (CRUSHING AND SCREENING)
• HIGHWAY TRUCKS
• OFF-ROAD TRUCKS

3. THE AGGREGATE PIT EQUIPMENT SHALL SATISFY THE NOISE EMISSION LEVELS LISTED IN THE BELOW TABLE:

EQUIPMENT	REFERENCE SOUND PRESSURE LEVEL AT 30m
PROCESSING PLANT	80
DRAG LINE	73
SHIPPING SURGE PILE LOADER	67
EXTRACTION LOADER	70
HIGHWAY TRUCK 20 km/h	71
OFF ROAD TRUCK 30 km/h	80

1. THE SHIPMENT LOADER AND SURGE PILE LOADERS WERE ASSUMED TO OPERATE AT A 50% DUTY CYCLE.

4. THE SOUND EMISSIONS OF ALL CONSTRUCTION EQUIPMENT INVOLVED IN SITE PREPARATION AND REHABILITATION ACTIVITIES SHALL COMPLY WITH THE SOUND LEVEL LIMITS SPECIFIED IN THE MCHR PUBLICATION NRC-115 "CONSTRUCTION EQUIPMENT".

5. NEW EQUIPMENT TECHNOLOGY OR DIFFERENT CONFIGURATIONS MAY ALLOW PROPOSED CHANGES TO ANY PORTION OF THE EXTRACTION AND PROCESSING OPERATIONS INCLUDING ADDITIONAL EQUIPMENT TO OPERATE ON THE SITE, EQUIPMENT TO BE SUBSTITUTED, AND/OR DIFFERENT BERM HEIGHTS, WHILE STILL MEETING THE APPLICABLE SOUND LEVEL LIMITS. CHANGES MAY BE PERMITTED TO THE SITE OPERATIONS AND NOISE CONTROLS PROVIDED THAT THE CHANGES STILL MEET THE SOUND LEVEL LIMITS, AS CONFIRMED THROUGH DOCUMENTATION PREPARED BY A PROFESSIONAL ENGINEER SPECIALIZING IN NOISE CONTROL.

6. AN ACOUSTIC BARRIER IS REQUIRED TO BE SOLID, WITH NO GAPS OR OPENINGS, AND SHALL SATISFY A MINIMUM AREA DENSITY OF 20 KG/M². IT COULD TAKE THE FORM OF A WORKING FACE, STOCKPILE, ACOUSTIC FENCE, ISO CONTAINERS, A COMBINATION OF THESE, OR ANY CONSTRUCTION SATISFYING THE REQUIREMENTS OF AN ACOUSTIC BARRIER.

7. PRIOR TO EXTRACTION OPERATIONS, THE FOLLOWING ACOUSTICAL BARRIERS SHALL BE ESTABLISHED AS NOTED BELOW AND AS SHOWN ON THE OPERATION PLAN, THESE BARRIERS SHALL REMAIN IN PLACE FOR THE LIFETIME OF THE PIT.
• BARRIER A - TOP-OF-BARRIER ELEVATION OF 283 MASL WITH APPROXIMATE LENGTH OF 175 M
• BARRIER B - TOP-OF-BARRIER ELEVATION OF 280 MASL WITH APPROXIMATE LENGTH OF 275 M
• BARRIER C - TOP-OF-BARRIER OF ELEVATION 282 MASL WITH APPROXIMATE LENGTH OF 150 M

8. PRIOR TO EXTRACTION OR PROCESSING OPERATIONS WITHIN 200 M OF THE NORTHMOST EXTRACTION LIMIT, THE FOLLOWING ACOUSTICAL BARRIERS SHALL BE ESTABLISHED AS NOTED BELOW AND AS SHOWN ON THE OPERATION PLAN, THESE BARRIERS SHALL REMAIN IN PLACE FOR THE LIFETIME OF THE PIT.
• BARRIER D - TOP-OF-BARRIER ELEVATION OF 283 MASL WITH APPROXIMATE LENGTH OF 150 M
• BARRIER E - RELATIVE HEIGHT OF 3 M WITH RESPECT TO EXISTING GRADE, WITH APPROXIMATE LENGTH OF 215 M.

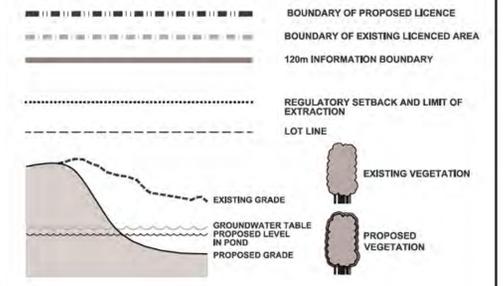
9. AN ACOUSTICAL BARRIER SHALL BE ESTABLISHED WITHIN 30 M OF THE PROCESSING PLANT, BREAKING THE LINE OF SIGHT TO THE RECEPTOR LISTED IN TABLE A2, WITH A MINIMUM HEIGHT BASED ON THE RECEPTOR'S DISTANCE FROM THE PROCESSING PLANT AS SPECIFIED IN TABLE BELOW:

TOP OF BARRIER HEIGHT (MASL)	8 M SHIELDING REQUIRED	10 M SHIELDING REQUIRED
R01	WITHIN 400 M	WITHIN 180 M
R06	WITHIN 400 M	WITHIN 150 M
R07-R11	WITHIN 400 M	NEVER
R12	WITHIN 400 M	NEVER

10. THE PROCESSING PLANT SHALL NOT OPERATE WITHIN 100 M OF RECEPTOR R01.

11. EXTRACTION OPERATIONS AND PROCESSING OPERATIONS MAY NOT OCCUR SIMULTANEOUSLY WITHIN 180 M OF RECEPTOR R01.

LEGEND



SECTION NOTES
GENERAL INFORMATION

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

TECHNICAL RECOMMENDATIONS

THE FOLLOWING ARE THE TECHNICAL RECOMMENDATIONS FROM ALL OF THE EXPERTS' REPORTS AS OF MARCH 2022. ADDITIONAL RECOMMENDATIONS MAY BE INCLUDED AS A RESULT OF THE LICENCE REVIEW PROCESS.

ARCHAEOLOGICAL ASSESSMENT
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 PROPONENT 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 CEMETERIES ACT, R.S.O. 1990 C. C.4 AND THE FUNERAL, BURIAL AND CREMATION SERVICES ACT, 2002, S.O. 2002, C.33 (WHEN PROCLAIMED IN FORCE) REQUIRE THAT ANY PERSON DISCOVERING HUMAN REMAINS MUST NOTIFY THE POLICE OR CORONER AND THE REGISTRAR OF CEMETERIES AT THE MINISTRY OF CONSUMER SERVICES.

Pre Licence Review				Site Plan Amendments			
NO.	DATE	REVISIONS	OWNER	NO.	DATE	REVISIONS	OWNER

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Project Name
BRANTAM EXCAVATING ELGIN ROAD PIT
LICENSEE SIGNATURE: [Redacted]
PART LOT 13 & 14, CONCESSION 1 NRT
MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER, COUNTY OF MIDDLESEX)

Scale 1:4000 North Stamp
0 50 100 150m

Drawing Status
PRELIMINARY FOR DISCUSSION

Drawn SB Checked RM Issue Date FEB 2023

Drawing Title
SECTIONS AND TECHNICAL RECOMMENDATIONS
Project Number
22-22
Drawing Number
4 OF 5

NOTES CONTINUED

SIDESLOPE/ MEADOW REHABILITATION INFORMATION

GRADING INFORMATION
 5. REHABILITATED SLOPES WITHIN THE LICENCED AREA WILL BE CONSTRUCTED AS SHOWN ON THE CROSS SECTIONS. REHABILITATION OF ABOVE WATER SLOPES SHALL BE BY BACKFILLING (MINIMUM 3:1) AND/OR CUT AND FILL METHOD USING AVAILABLE ON-SITE OVERBURDEN AND TOPSOIL FROM WITHIN THE LICENCED AREA AND/OR CLEAN INERT IMPORTED FILL.

IMPORTATION OF FILL INFORMATION
 EXCESS SOIL AS DEFINED IN ONTARIO REGULATION 406/19 UNDER THE ENVIRONMENTAL PROTECTION ACT, MAY BE IMPORTED TO THIS SITE TO FACILITATE THE FOLLOWING REHABILITATION:
 I. CREATION OF 3:1 SLOPES
 II. TOP DRESSING TO ESTABLISH VEGETATION

THE QUALITY OF EXCESS SOIL IMPORTED TO THE SITE FOR FINAL PLACEMENT MUST NOT EXCEED THE APPLICABLE EXCESS SOIL QUALITY STANDARDS IN ACCORDANCE WITH O. REG 406/19 AS AMENDED FROM TIME TO TIME AND MUST BE CONSISTENT WITH THE SITE CONDITIONS AND THE END USE IDENTIFIED IN THE APPROVED REHABILITATION PLAN.

EXCESS SOIL IMPORTED TO FACILITATE REHABILITATION AS DESCRIBED SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE "RULES FOR SOIL MANAGEMENT AND EXCESS SOIL QUALITY STANDARDS" PUBLISHED BY THE MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS UNDER O. REG. 406/19, AS AMENDED FROM TIME TO TIME.

THE MAXIMUM TOTAL AMOUNT OF EXCESS SOIL THAT MAY BE IMPORTED TO THIS SITE FOR REHABILITATION PURPOSES IS 40,000 M³.

SAMPLING AND TESTING OF ALL IMPORTED MATERIAL SHALL BE PERFORMED AT SOURCE PRIOR TO THE IMPORTATION OF MATERIAL ONTO THE LICENCED SITE BY A QP UNDER EPA, A QP SHALL ALSO DESIGN A FILL MONITORING PROGRAM.

THE LICENSEE SHALL KEEP DETAILED RECORDS OF THE AMOUNT OF MATERIAL BROUGHT ON SITE FOR REHABILITATION AND THE TESTING RESULTS OF ALL SAMPLES. ALL RECORDS AND TESTING RESULTS SHALL BE AVAILABLE UPON REQUEST BY MNR OR MECP.

AVAILABLE OVERBURDEN REPLACED WILL BE APPROXIMATELY 100mm THICK. REFER TO DRAWING 3 AND 4 OF 5, 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.

VEGETATION STABILIZATION INFORMATION
 7. BERMS SHALL BE SEEDED WITH A MIXTURE OF GRASSES AND LEGUMES THAT MAY INCLUDE THE FOLLOWING AT A RATE OF APPROXIMATELY 125KG/HA:
 BUCKWHEAT RED CLOVER WHITE CLOVER
 TALL FESCUE ANNUAL RYE

MEADOW AND SIDE SLOPES SHALL BE SEEDED WITH AVAILABLE SEED SOURCES THAT HAVE BEEN USED IN THE LOCAL AREA EXCLUDING INVASIVE AND NON-NATIVE SPECIES.

OPEN WATER POND REHABILITATION INFORMATION

8. THE AVERAGE WATER LEVEL IN THE POST-EXTRACTION POND IS ESTIMATED TO BE 274.25 m ASL.

9. THE SHAPE AND GRADING OF THE PROPOSED POND IS APPROXIMATE, BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF LICENSING. ACTUAL EXTRACTION WILL FOLLOW THE BELOW WATER DEPOSIT AND REHABILITATION SHALL FOLLOW THE CONCEPT ILLUSTRATED.

WETLAND AND TURTLE POND REHABILITATION INFORMATION

10. AREAS SHALL BE REHABILITATED TO WETLAND HABITAT AS FOLLOWS:
 - UNDERWATER SLOPES WILL BE FORMED WITH ON-SITE FILL
 - UNDERWATER SLOPES SHALL BE A MAXIMUM OF 2:1

11. RESTORATION OF THE NEARSHORE, SHALLOW WETLAND ZONE AS SHOWN ON THE TYPICAL SHALLOW SHORELINE SECTION, SHEET 5 OF 5, WILL GENERALLY BE ACCOMPLISHED AS FOLLOWS:
 • EXTRACTION AND ROUGH GRADING WILL CREATE A NEARSHORE SHORELINE AREA AT A SLOPE OF 10:1
 • FINAL SLOPING OF THE SHORELINE TO CREATE PHYSICAL DIVERSITY BY SCALLOPING THE SHORELINE AND ADDING STRUCTURES.
 • WOODY DEBRIS- BRANCHES, TREE TRUNKS, STUMPS, ETC. CLEARED IN THE EXTRACTION PROCESS WILL BE SALVAGED WHERE POSSIBLE, FOR USE IN SHORELINE RESTORATION/ UNDERWATER HABITAT ENHANCEMENT.
 • STUMPS, LOGS, BRUSH BUNDLES, ETC. SHALL BE INSTALLED 330m O.C. ALONG THE SHORELINE IN THE SHALLOW ZONE TO CREATE PHYSICAL DIVERSITY.
 • OVERSIZE ROCKS NOT UTILIZED IN THE AGGREGATE OPERATIONS WILL ALSO BE PLACED IN THE SHALLOW ZONE TO CREATE PHYSICAL DIVERSITY.
 • THE INITIAL SHORELINE RESTORATION AREA WILL BE SPORADICALLY PLANTED WITH TREES AND SHRUBS. SPECIES MAY INCLUDE THE FOLLOWING NATIVE PLANTS:

- | | | | |
|-----------------|----------------|---------------------|-----------|
| RED MAPLE | PUSSY WILLOW | SILVER MAPLE | RED OSIER |
| DOGWOOD | STAGHORN SUMAC | SPECKLED ALDER | LARCH |
| WHITE CEDAR | CHOKE CHERRY | SMOOTH SERVICEBERRY | |
| COMMON NINEBARK | GRAY DOGWOOD | COMMON ELDERBERRY | |

12. INITIAL SHORELINE WETLAND AREAS SHALL BE PLANTED WITH CLUMPS OF EMERGENT AND SUBMERGENT NATIVE WETLAND PLANTS TO INITIATE COLONIZATION OF THE SITE AS NUTRIENT LEVELS INCREASE TO SUPPORT THEM. NATIVE WETLAND PLANTS SUCH AS:

- | | |
|------------------------|--------------------|
| FLOATING PONDWEED | COONTAIL |
| BROAD LEAVED ARROWHEAD | PICKERELWEED |
| COMMON WOOLY BULRUSH | WATER-LILY |
| GREEN-FRUITED BURREED | SOFTSTEM BULRUSH |
| BROAD LEAVED ARROWHEAD | RIVER BULRUSH |
| SWAMP MILKWEED | DARK GREEN BULRUSH |

WILL BE PLANTED IN CLUSTERS OF 5 AT APPROPRIATE DEPTHS TO BEGIN THE COLONIZATION.

13. RIPARIAN CORRIDOR PLANTING AND SEEDING SHALL BE COMPLETED PER THE NATURAL ENVIRONMENT TECHNICAL RECOMMENDATIONS (PAGE 4 OF 5).

LEGEND

	BOUNDARY OF PROPOSED LICENCE
	BOUNDARY OF EXISTING LICENCED AREA
	120m INFORMATION BOUNDARY
	PROPERTY LINES
	REGULATORY SETBACK AND LIMIT OF EXTRACTION
	LOT LINE
	EXISTING FENCE
	EXISTING 5m ASL CONTOUR LINE
	EXISTING 1m ASL CONTOUR LINE
	EXISTING SPOT ELEVATION IN ASL
	PROPOSED 5m CONTOUR LINE
	PROPOSED 1m CONTOUR LINE
	PROPOSED SPOT ELEVATION
	EXISTING VEGETATION
	EXISTING WETLAND
	EXISTING OPEN WATER
	PROPOSED WETLAND
	PROPOSED OPEN WATER
	EXISTING BUILDING AND NUMBER
	EXISTING HYDRO POLE
	DIRECTION OF SURFACE WATER DRAINAGE
	LOCATION OF SECTION

REHABILITATION NOTES

GENERAL INFORMATION

- REFER TO SHEET 4 OF 4 FOR SECTIONS, SHEET 2 AND 3 OF 4 FOR OPERATIONS AND PHASING DIAGRAMS AND NOTES AND SHEET 4 OF 4 FOR FINAL REHABILITATION AND NOTES.
- PROPERTY SHALL BE REHABILITATED TO:
 OPEN WATER POND 12.9 HA
 WETLAND 1.4 HA
 SIDESLOPE/ MEADOW 3.5 HA
 FOR A TOTAL OF 17.8 HECTARES.

HYDROGEOLOGICAL INFORMATION

- HYDROGEOLOGICAL INFORMATION INCLUDING GROUNDWATER ELEVATION WAS OBTAINED FROM REPORT BY EXP DATED JANUARY 2022.
- THE MAXIMUM PREDICTED WATER TABLE ELEVATION WITHIN THE SITE IS ESTIMATED TO BE BETWEEN 273.42 AND 274.64m ABOVE SEA LEVEL (A.S.L.), BASED ON ABOVE REPORT.

NO.	DATE	REVISIONS	OWNER	HA	DATE	REVISIONS	OWNER	HA

Pre Licence Review Site Plan Amendments

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Project Name

BRANTAM EXCAVATING ELGIN ROAD PIT

LICENSEE SIGNATURE: [Redacted]

PART LOT 13 & 14, CONCESSION 1 NRT
 MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER), COUNTY OF MIDDLESEX

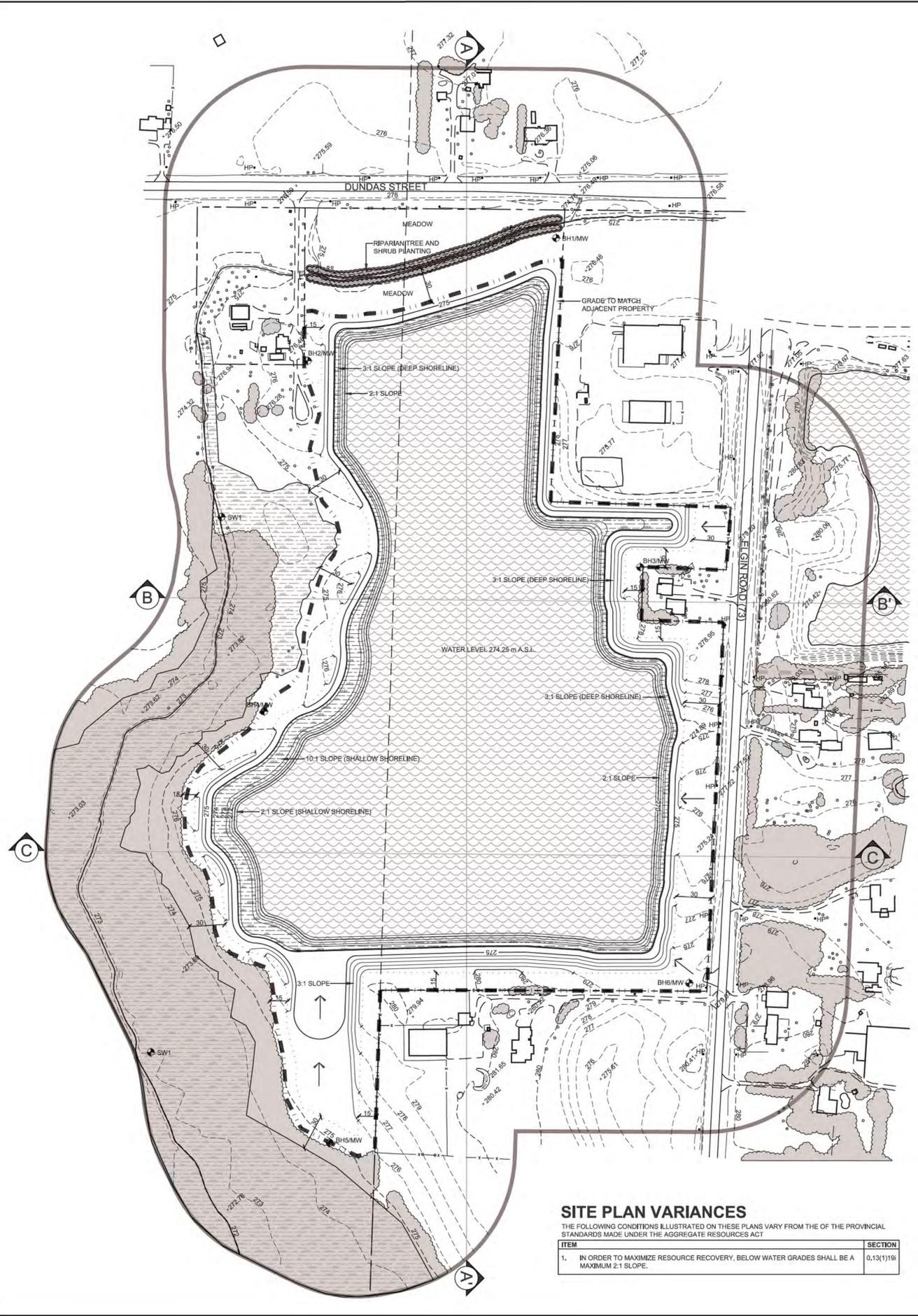
Scale 1:2000 North Stamp

Drawing Status
 SUBMITTED FOR APPROVAL

Drawn SB Checked RM Issue Date FEB 2023

Drawing Title
REHABILITATION PLAN

Project Number
22-22
 Drawing Number
5 OF 5



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

ITEM	SECTION
1. IN ORDER TO MAXIMIZE RESOURCE RECOVERY, BELOW WATER GRADES SHALL BE A MAXIMUM 2:1 SLOPE.	0.13(1)19

