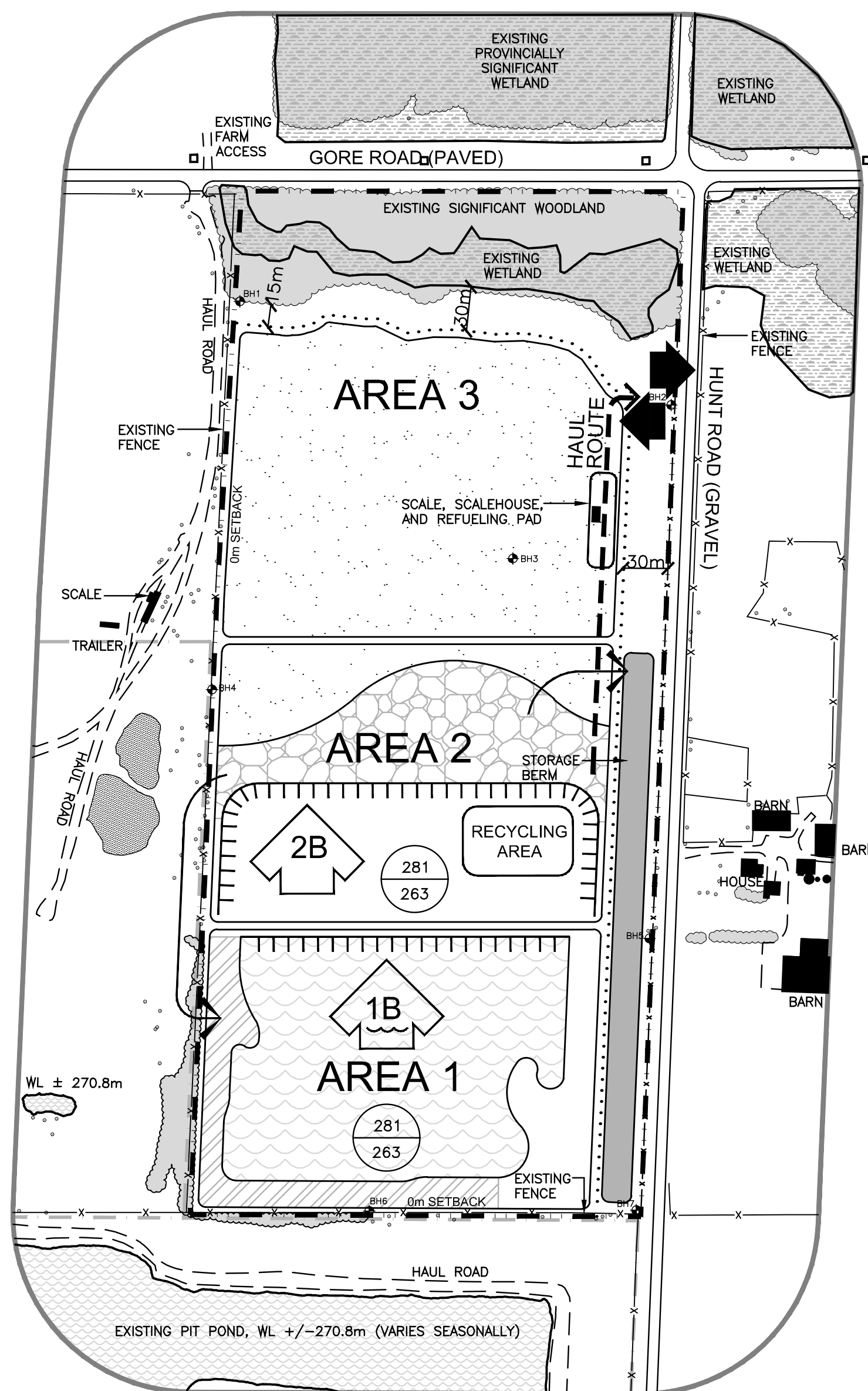


PHASE B



PHASE B

1. STRIP TOPSOIL AND OVERBURDEN SEPARATELY FROM AREA 2 AND USE THE MATERIAL TO BEGIN PROGRESSIVE REHABILITATION OF THE SOUTHERN AND WESTERN PARTS OF AREA 1. EXCESS MATERIAL MAY BE STOCKPILED IN STORAGE BERM ALONG HUNT ROAD.
2. BEGIN ABOVE WATER EXTRACTION OF AREA 2 IN DIRECTION SHOWN. SHIP MATERIAL TO TEMPORARY PLANT SITE (NOT SHOWN, PORTABLE PROCESSING EQUIPMENT TO BE USED).
3. BEGIN BELOW WATER EXTRACTION OF AREA 1 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. UNDISTURBED PORTION OF AREA 2 & 3 TO REMAIN IN AGRICULTURAL USE.
5. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

TECHNICAL RECOMMENDATIONS

THE FOLLOWING ARE THE TECHNICAL RECOMMENDATIONS FROM ALL OF THE EXPERTS' REPORTS AS OF NOVEMBER 2020. ADDITIONAL RECOMMENDATIONS MAY BE INCLUDED AS A RESULT OF THE LICENCE REVIEW PROCESS.

- ARCHAEOLOGICAL ASSESSMENT - TIMMINS MARTELLE HERITAGE CONSULTANTS INC. DATED JUNE 2016**
1. SHOULD PREVIOUSLY UNKNOWN (I.E. UNKNOWN OR DEEPLY BURIED) ARCHAEOLOGICAL RESOURCES BE DISCOVERED, THEY MAY BE A NEW ARCHAEOLOGICAL SITE AND THEREFORE SUBJECT TO SECTION 49(1) OF THE ONTARIO HERITAGE ACT. THE PROPONENT OR PERSONA 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, FURTHER ARCHAEOLOGICAL SITES RECOMMENDED FOR FURTHER ARCHAEOLOGICAL FIELDWORK OR PROTECTION REMAIN SUBJECT TO SECTION 48(1) OF THE ONTARIO HERITAGE ACT AND SHALL NOT BE ALTERED, OR HAVE ARTIFACTS REMOVED FROM THEM, EXCEPT BY A PERSON HOLDING AN ARCHAEOLOGICAL LICENCE.
 2. THE FUNERAL, BURIAL, AND CREMATION SERVICES ACT 2002, S.O. 2002, C. 33 REQUIRES THAT ANY PERSON DISCOVERING HUMAN REMAINS MUST NOTIFY THE POLICE OR CORONER AND THE REGISTRAR OF CEMETERIES AT THE MINISTRY OF SMALL BUSINESS AND CONSUMER SERVICES. THE REGISTRAR OF CEMETERIES, CEMETERIES REGULATION UNIT CAN BE REACHED AT (416)326-8404 OR (416)326-8393.

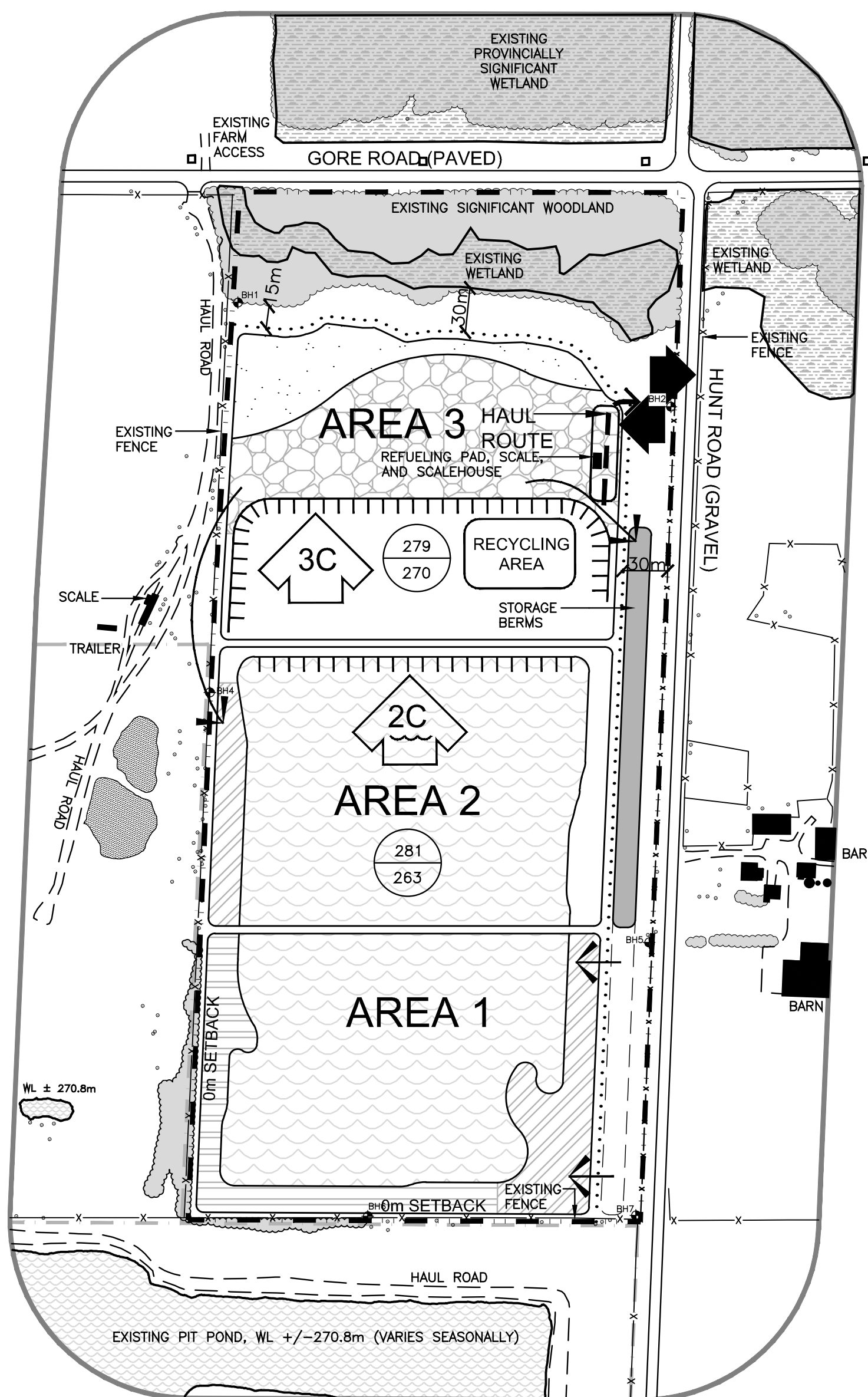
HYDROGEOLOGICAL ASSESSMENT - LDS DATED NOVEMBER 12, 2020

1. FUEL STORAGE, EQUIPMENT FILLING, AND EQUIPMENT MAINTENANCE SHALL BE CARRIED OUT IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES OUTLINED IN SECTION 6.1, INCLUDING DESIGNATED FUELING LOCATIONS AND IMPLEMENTATION OF SPILLS MANAGEMENT RESPONSE PLANS, AS APPROPRIATE TO REDUCE THE POTENTIAL AND MITIGATE RISKS ASSOCIATED WITH THE EQUIPMENT OPERATION.
2. WATER LEVELS HAVE BEEN CARRIED OUT ON A MONTHLY BASIS SINCE THE INCEPTION OF THE MONITORING WELLS WHICH WERE INSTALLED ONSITE. GROUNDWATER LEVEL MONITORING SHALL CONTINUE AT THE SITE ON A QUARTERLY BASIS AFTER THE PIT IS LICENSED, AND CONTINUE UNTIL SITE RESTORATION IS COMPLETE.
3. GROUNDWATER SAMPLES HAVE BEEN COLLECTED AT THE SITE TO ESTABLISH BASELINE WATER QUALITY CONDITIONS FOR SHALLOW GROUNDWATER WITHIN THE UNCONFINED AQUIFER WHICH IS EXPECTED TO BE ENCOUNTERED DURING UNDERGROUNDED (I.E. UNKNOWN OR DEEPLY BURIED) ARCHAEOLOGICAL FIELDWORK. FURTHER WATER QUALITY TESTING CAN BE COMPARED TO THE BACKGROUND INFORMATION PRESENTED IN THIS REPORT, IF REQUIRED.
4. IF COMPLAINTS ARE RECEIVED FROM NEARBY OR NEIGHBOURING PROPERTY OWNERS (WITHIN 120 M OF THE SITE), THE WATER SUPPLY INTERFERENCE PROTOCOLS OUTLINED AS FOLLOWS SHALL BE ADHERED TO.

THE FOLLOWING WATER WELL INTERFERENCE COMPLAINT PROTOCOL IS RECOMMENDED TO ADDRESS WATER SUPPLY INTERFERENCE TO DOMESTIC AND FARM WATER SUPPLIES FOR PROPERTIES LOCATED IN PROXIMITY (WITHIN 150 M) TO THE SITE.

1. NEARBY AND NEIGHBOURING PROPERTIES SHALL BE PROVIDED WITH 24-HOUR EMERGENCY CONTACT INFORMATION FOR THE LICENSEE, TO FACILITATE REPORTING OF PERCEIVED WATER SUPPLY IMPACTS.
 2. NEARBY AND NEIGHBOURING PROPERTIES WHICH EXPERIENCE DISRUPTION OR QUALITY PROBLEMS SHALL NOTIFY THE LICENSEE, WHO WILL BE RESPONSIBLE TO REPORT THE WELL INTERFERENCE COMPLAINT TO MNRF AND MECP WITHIN 24 HOURS.
 3. IN THE EVENT THAT THE WELL OWNER EXPERIENCES A SIGNIFICANT DISRUPTION IN THEIR WATER SUPPLY, OR EXPERIENCE SIGNIFICANT ADVERSE EFFECTS UPON THEIR WATER QUALITY, AND IF THE OPERATION OF THE PIT CANNOT OBVIOUSLY AND DEFINITELY BE EXCLUDED AS THE CAUSE, THE LICENSEE SHALL PROVIDE A TEMPORARY WATER SUPPLY WITHIN 24 HOURS AND THEREAFTER UNTIL SUCH TIME AS THE CAUSE OF THE DISTURBANCE CAN BE DETERMINED AND THE SITUATION ADDRESSED.
 4. SIGNIFICANT ADVERSE EFFECTS UPON THE WATER QUALITY, WOULD INCLUDE WATER QUALITY CONCERNS IDENTIFIED BY HOMEOWNERS, BASED ON VISUAL OBSERVATIONS (CHANGE IN COLOUR, CLOUDINESS OR SEDIMENT, APPEARANCE OF A SHEEN), OLFACTORY REVIEW (UNUSUAL ODOR), OR ALTERED/UNPLEASANT TASTE OF WATER SUPPLIED FROM THE WELL WHICH WOULD IMPEDE THE CONTINUED USE OF THE WATER FOR POTABLE PURPOSES.
 5. DEPENDING ON THE ISSUE IDENTIFIED BY THE WELL OWNER, WATER SAMPLES WILL BE TAKEN TO ASSESS THE WATER QUALITY. THE SPECIFIC TYPE OF TESTING WILL BE DETERMINED BY A QUALIFIED PERSON (THE HYDROGEOLOGICAL CONSULTANT).
- THE LICENSEE SHALL INVESTIGATE THE CAUSE OF THE WATER SUPPLY DISTURBANCE AND SHALL REPORT TO THE MNRF, MECP AND THE WELL OWNER.
- IF IT IS DETERMINED THAT THE AGGREGATE EXTRACTION AT THE PIT HAS BEEN FOUND TO HAVE CAUSED A DOMESTIC OR FARM WATER SUPPLY TO BE ADVERSELY AFFECTED, THE LICENSEE SHALL, AT THE LICENSEES EXPENSE, EITHER RESTORE OR REPLACE THE WATER SUPPLY TO ENSURE THAT HISTORIC WATER SUPPLY AND QUALITY ARE RESTORED FOR SUCH A RESIDENT. IF IT IS DETERMINED THAT THE OPERATION OF THE PIT HAS NOT CAUSED ANY DOMESTIC OR FARM WATER SUPPLY TO BE ADVERSELY AFFECTED, THE TEMPORARY WATER SUPPLY WILL BE MAINTAINED FOR AN ADDITIONAL 24 HOURS TO ALLOW THE RESIDENT TO MAKE ALTERNATE WATER SUPPLY ARRANGEMENTS.

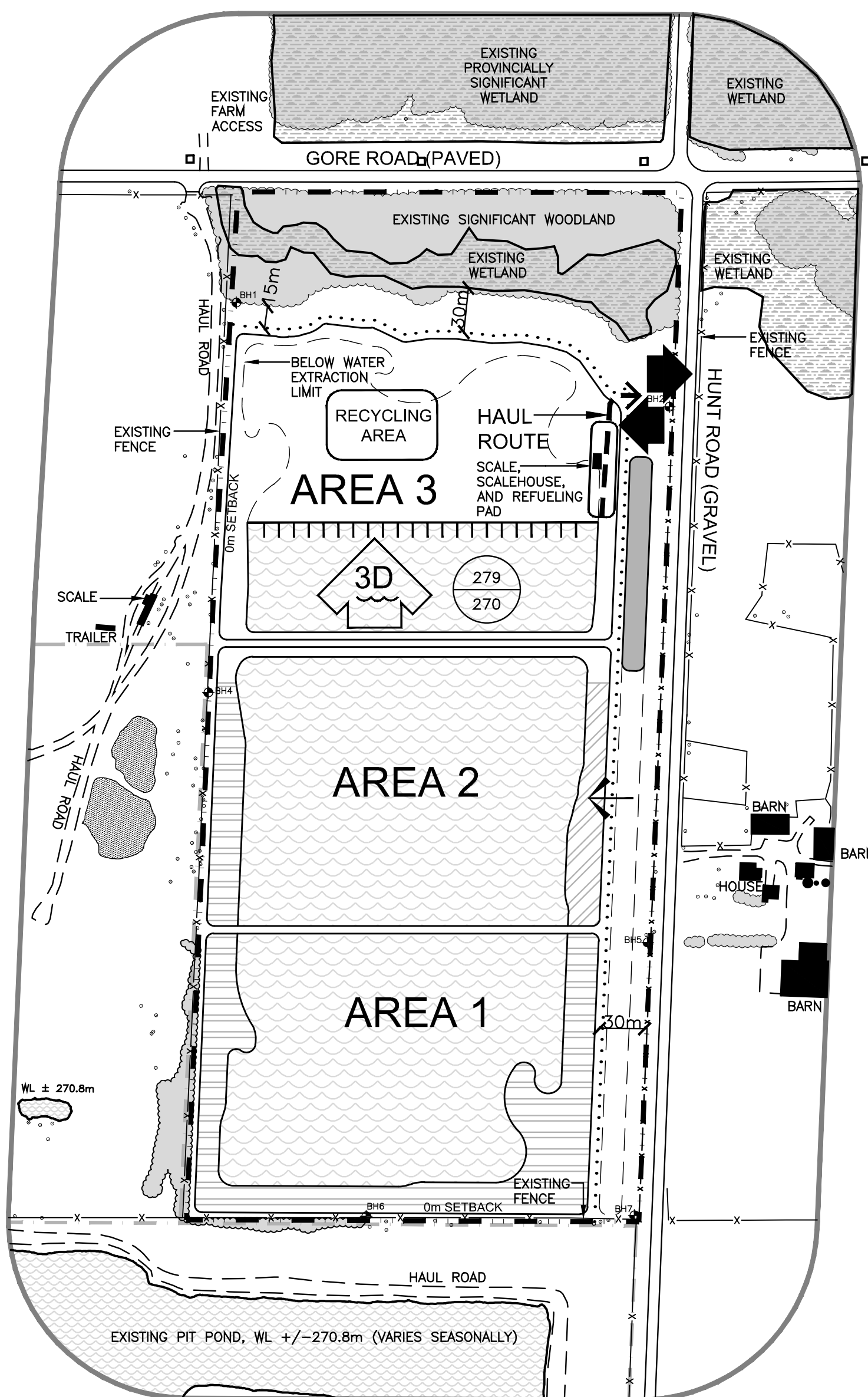
PHASE C



PHASE C

1. STRIP TOPSOIL AND OVERBURDEN SEPARATELY FROM AREA 3 AND BEGIN PROGRESSIVE REHABILITATION OF THE WESTERN PART OF AREA 2. EXCESS MATERIAL MAY BE STOCKPILED IN BERM ALONG HUNT ROAD.
2. COMPLETE PROGRESSIVE REHABILITATION OF SOUTHERN AND WESTERN PARTS OF AREA 1 USING MATERIAL STOCKPILED IN BERM ALONG EAST SIDE OF AREA 1. THE AREA RETURNS TO POND/ WETLAND AND NATURAL AREA/ OPEN SPACE AFTER-USE.
3. BEGIN PROGRESSIVE REHABILITATION OF EASTERN PART OF AREA 1 USING TOPSOIL AND OVERBURDEN STOCKPILED IN BERM ALONG HUNT ROAD.
4. BEGIN ABOVE WATER EXTRACTION OF AREA 3 IN DIRECTION SHOWN. SHIP MATERIAL TO TEMPORARY PLANT SITE (NOT SHOWN, PORTABLE PROCESSING EQUIPMENT TO BE USED).
5. 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).
6. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

PHASE D



PHASE D

1. COMPLETE PROGRESSIVE REHABILITATION OF AREA 1, THE AREA RETURNS TO POND/ WETLAND AND NATURAL AREA/ OPEN SPACE AFTER-USE.
2. COMPLETE PROGRESSIVE REHABILITATION OF THE WESTERN PART OF AREA 2, THE AREA RETURNS TO POND/ WETLAND AND NATURAL AREA/ OPEN SPACE AFTER-USE.
3. BEGIN PROGRESSIVE REHABILITATION OF EASTERN PART OF AREA 2 USING MATERIAL STOCKPILED IN BERM ALONG HUNT ROAD.
4. COMPLETE BELOW WATER EXTRACTION IN AREA 2.
5. BEGIN BELOW WATER EXTRACTION OF AREA 3 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).
6. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

PHASE E (NOT SHOWN)

1. COMPLETE PROGRESSIVE REHABILITATION OF EAST SIDE OF AREA 2 AND BEGIN PROGRESSIVE REHABILITATION OF AREA 3 USING TOPSOIL AND OVERBURDEN STOCKPILED IN THE BERM ALONG AREA 3 OF HUNT ROAD. THE AREA RETURNS TO POND/ WETLAND AND NATURAL AREA/ OPEN SPACE/ REFORESTATION AFTER-USE.
2. REMOVE ALL EQUIPMENT, STRUCTURES, STOCKPILES AND SCRAP FROM THE SITE AND REHABILITATE ALL HAUL ROADS USING TOPSOIL AND OVERBURDEN STOCKPILED IN BERMS.
3. COMPLETE PROGRESSIVE REHABILITATION IN AREA 3 USING MATERIAL REMAINING IN BERMS. AREA 3 RETURNS TO POND/ WETLAND AND NATURAL AREA/ OPEN SPACE/ REFORESTATION AFTER-USE.
4. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION.

TECHNICAL RECOMMENDATIONS CONTINUED ON PAGE 4 OF 5

LEGEND

| | | | |
|--|--|--|--|
| | BOUNDARY OF AREA TO BE LICENSED | | EXISTING BUILDING |
| | BOUNDARY OF EXISTING LICENSED PITS | | EXISTING HYDRO POLE |
| | 120m INFORMATION BOUNDARY | | ENTRANCE/ EXIT |
| | REGULATORY SETBACK AND EXTRACTION LIMIT LINE | | DIRECTION OF ABOVE WATER EXTRACTION |
| | EXISTING FENCE | | DIRECTION OF BELOW WATER EXTRACTION |
| | EXISTING VEGETATION | | DIRECTION OF TOPSOIL AND OVERBURDEN MOVEMENT |
| | EXISTING WETLAND | | PRODUCT TRANSPORTATION VIA HAUL ROAD |
| | EXISTING STOCKPILE | | LOCATION OF NOISE RECEPTOR |
| | EXTRACTION FACE | | EXISTING ELEVATION |
| | BERM (MIN. HEIGHT AS SHOWN) | | PROPOSED ELEVATION |
| | UNDISTURBED AREA | | BOREHOLE LOCATION AND NUMBER DRILLED AND MONITORING WELL INSTALLED BY LDS JUNE 10-22, 2019 |
| | AREA STRIPPED OF TOPSOIL AND OVERBURDEN | | |
| | ONGOING/ PROGRESSIVE REHABILITATION | | |
| | ONGOING REHABILITATION | | |
| | COMPLETED REHABILITATION | | |
| | BELOW WATER EXTRACTION | | |

| NO. | DATE | REVISIONS | OWNER | HA | MNR |
|-----|----------|-------------------|-------|----|-----|
| 1 | FEB 2021 | PER MNRF COMMENTS | | | |

| NO. | DATE | REVISIONS | OWNER | HA | MNR |
|-----|------|-----------|-------|----|-----|
| | | | | | |

Pre Licence Review

Site Plan Amendments



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

Project Name

Thames Valley Aggregates Inc. PIKE PIT

LICENCE No.
PART LOT 18, CONCESSION 3
MUNICIPALITY OF THAMES CENTRE (FORMERLY TOWNSHIP OF NORTH DORCHESTER, COUNTY OF MIDDLESEX)

| | | |
|--|---------------|-----------------------|
| Scale 1:3000 | North | Stamp |
| | | |
| Drawing Status SUBMITTED TO MNRF FOR APPROVAL | | |
| Drawn RM/SB | Checked MH/RM | Issue Date FEB 2021 |
| Drawing Title | | Project Number 20-23 |
| | | Drawing Number 3 OF 5 |

OPERATION PLANS PHASE B TO E

3 OF 5