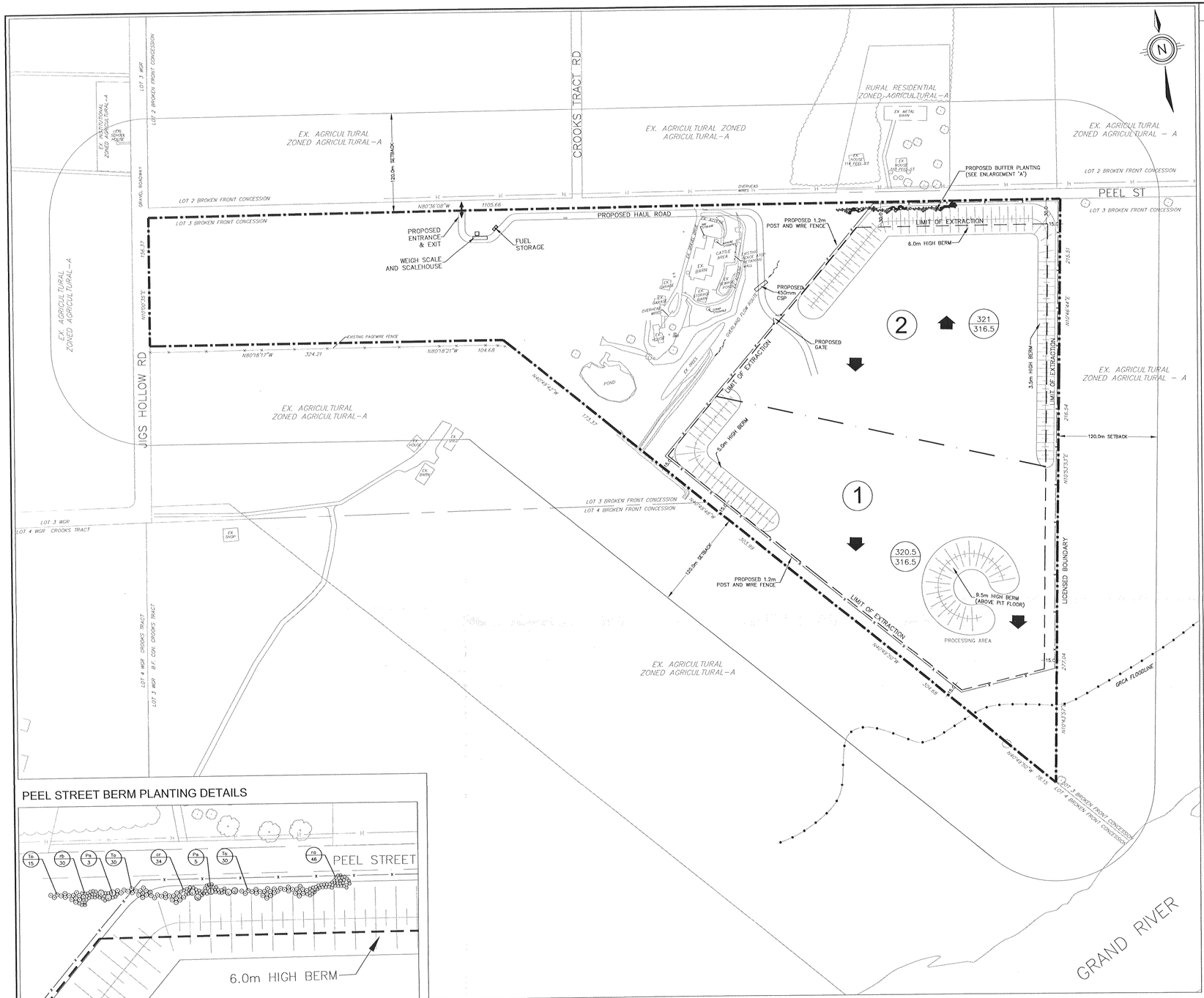


PEEL STREET BERM PLANTING DETAILS

A ENLARGEMENT - BUFFER PLANTING
1:1000

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND	MATURE HEIGHT (m)	MATURE SPREAD (m)	O.C. SPACING (m)	QNTY.
	TREES							
Ps	Pinus strobus	Eastern White Pine	200cm	W.B.	18.0	7.0	7.5	8
To	Thuja occidentalis	White Cedar	120cm	W.B.	20.0	2.0	2.0	75
	SHRUBS							
cr	Cornus racemosa	Gray Dogwood	80cm	#3cont	3.0	2.5	2.5	34
ra	Rubus allegheniensis	Blackberry	30cm	#1cont	2.0	2.0	1.2	46
rb	Rosa blanda	Meadow Rose	40cm	#3cont	1.5	1.5	1.2	30

NOTES

1. TONNAGE LIMIT: IT IS A CONDITION OF THIS LICENCE THAT NO MORE THAN 150,000 TONNES OF MATERIAL SHALL BE REMOVED FROM THIS LICENSED PROPERTY ANNUALLY AND THE EXTRACTION OF AGGREGATE SHALL NOT OCCUR WITHIN 1.5 METRES OF THE HIGH WATER TABLE.
2. FENCING: DURING EXTRACTION OF ALL PHASES, A 1.2 METRE HIGH FENCE SHALL BE INSTALLED ALONG THE EXTERNAL BOUNDARIES OF THE EXTRACTION AREA TO ENSURE THE SITE IS SECURE. THIS WILL ALSO INCLUDE THE INSTALLATION OF GATES AT THE LIMIT OF EXTRACTION OR AT THE ENTRANCE/EXIT WHICH CAN BE SECURED DURING PERIODS WHEN THE PIT IS CLOSED.
3. ENTRANCE/EXIT: ONE MAIN ENTRANCE/EXIT SHALL BE USED FOR HAULING AGGREGATE MATERIAL FROM THE SITE WHICH WILL BE ONTO PEEL STREET, AND TRUCKS MAY ONLY PROCEED NORTH TOWARD JIGS HOLLOW ROAD. THE ENTRANCE SHALL BE CONSTRUCTED TO APPLICABLE WOOLWICH ENTRANCE STANDARDS.
4. SCALE HOUSE: THE WEIGH SCALE AND SCALE HOUSE FACILITIES SHALL BE LOCATED NEAR THE MAIN ENTRANCE/EXIT. ALL MATERIAL EXTRACTED FROM THE SITE SHALL BE HAULED ONLY THROUGH THIS ENTRANCE/EXIT.
5. FUEL STORAGE: FUEL STORAGE SHALL BE LOCATED NEAR THE FRONT ENTRANCE/EXIT AND BE IN COMPLIANCE WITH PROVINCIAL LEGISLATION AND THE GASOLINE HANDLING ACT. SEMI PORTABLE EQUIPMENT USED ON SITE (I.E., CRUSHERS, SCREENERS, GENERATORS, ETC.) SHALL BE REFUELED BY A FUEL TRUCK AND FOLLOW THE NECESSARY GASOLINE HANDLING ACT REQUIREMENTS.
6. DUST MITIGATION ON EXTERNAL HAUL ROUTE: THE LICENSEE SHALL BE RESPONSIBLE TO ENSURE THAT DUST CREATED FROM TRUCKS USING THE HAUL ROUTE OF PEEL STREET AND JIGS HOLLOW ROAD IS MITIGATED AS NECESSARY AND/OR AS DIRECTED BY THE TOWNSHIP, USING MOE APPROVED DUST SUPPRESSANTS OR WATER.
7. EXTERNAL ROAD MAINTENANCE: THE LICENSEE SHALL BE RESPONSIBLE TO ENSURE THE ROAD SURFACE DEGRADATION DUE TO THE TRUCK USE ALONG THE HAUL ROUTE OF PEEL STREET AND JIGS HOLLOW ROAD IS REPAIRED AS NECESSARY AND/OR AS DIRECTED BY THE TOWNSHIP.
8. ADVISORY SIGNAGE: THE LICENSEE SHALL ERECT SIGNAGE AT THE PIT EXIT STIPULATING THE FOLLOWING.

   "ATTENTION DRIVERS
   a. LEFT TURN EXIT ONLY
   b. CAUTION WATCH FOR PEDESTRIANS, CYCLISTS AND SLOW MOVING VEHICLES SHARING THE ROAD".
9. GROUNDWATER: THE GROUNDWATER ELEVATION HAS BEEN DETERMINED BY MTZ AND ASSOCIATES LTD. THAT THE GROUNDWATER LEVEL VARIES ACROSS THE SITE BEING APPROXIMATELY 315.0 MASL AT THE NORTH, AND 314.0 MASL TOWARD THE SOUTHERN TIP.
10. STRIPPING: TOPSOIL AND OVERBURDEN SHALL BE STRIPPED AND STORED SEPARATELY. TOPSOIL AND OVERBURDEN MAY BE:

    a) STORED IN TEMPORARY BERMS AT THE PERIMETER OF THE AREA TO BE EXTRACTED UNTIL NEEDED FOR REHABILITATION.
    b) USED FOR PROGRESSIVE REHABILITATION.
11. BERMS: PERIMETER BERMS SHALL BE CONSTRUCTED TO THE HEIGHTS AND LOCATIONS NOTED ON THE PLAN AND SPECIFIED UNDER THE RECOMMENDATIONS FROM TECHNICAL REPORTS, NOISE STUDY - NOTE 2, UNLESS ADJACENT RESIDENTS REQUEST REDUCED BERM HEIGHTS. BERMS SHALL BE BUILT WITH 3:1 SIDESLOPES AND BE VEGETATED WITH A GRASS-TYPE LEGUME AND THE EXTERNAL SIDE WILL BE MAINTAINED (CUT ON A REGULAR BASIS) AS REQUIRED.
12. PHASING: DUE TO THE RELATIVE SMALL SIZE OF THE EXTRACTION AREA, ONLY TWO EXTRACTION PHASES WILL BE UTILIZED.
13. EXTRACTION DEPTH: EXCAVATION SHALL BE CARRIED OUT IN A SINGLE LIFT TO DEPTHS AS NOTED ON THE PLAN AND THE PIT FACE WILL NOT EXCEED 8.0 METRES IN HEIGHT (AND IN COMPLIANCE WITH MOL STANDARDS). THE FINAL PIT FLOOR SHALL NOT EXCEED THE ELEVATIONS NOTED AND NOT PROCEED CLOSER THAN 1.5 METRES TO THE MONITORED WATER TABLE, OR 2.0 METRES WHERE ASPHALT (FOR RECYCLING MAY BE STORED WITHIN PHASE 1.
14. DIRECTION OF EXTRACTION: EXTRACTION SHALL BE IN THE DIRECTION AS SHOWN ON THE PLAN IN ORDER TO MAXIMIZE NOISE ATTENUATION.
15. STOCKPILE HEIGHTS: AGGREGATE STOCKPILES SHALL BE LOCATED ON THE LOWEST PIT FLOOR WHENEVER POSSIBLE AND ADJACENT TO THE ACTIVE PIT FACE AND NOT EXCEED 20.0 METRES IN HEIGHT.
16. EQUIPMENT: PROPOSED EQUIPMENT TO BE USED ON SITE MAY INCLUDE, BUT NOT BE LIMITED TO FRONT END LOADERS, BULL DOZERS, BACK HOE POWER SHOVELS, DUMP TRUCKS, PORTABLE PROCESSING EQUIPMENT, SITE PREPARATION AND REHABILITATION EQUIPMENT.
17. PROCESSING: IT IS ANTICIPATED THAT ON-SITE SCREENING AND BLENDING WILL OCCUR FROM TIME TO TIME AND IT SHALL BE LOCATED AT THE LOWEST PIT FLOOR ELEVATION. CRUSHING WILL ONLY OCCUR WITHIN THE PROCESSING AREA OF PHASE 1.
18. AGGREGATE WASHING: THERE WILL BE NO WASH PONDS ASSOCIATED WITH THIS LICENCESE OR AGGREGATE WASHING.
19. RECYCLING: RECYCLING OF ASPHALT AND CONCRETE SHALL BE PERMITTED WITHIN PHASE 1 BUT THE LICENSEE SHALL NOT IMPORT AN ANNUAL AMOUNT EXCEEDING 30,000 TONNES NOR STOCKPILE A VOLUME EXCEEDING 30,000 TONNES.

    - RECYCLABLE ASPHALT MATERIALS WILL NOT BE STOCKPILED WITHIN:
      - 30.0 METRES OF ANY WATER BODY OR MAN MADE POND; OR
      - 2.0 METRES OF THE SURFACE OF THE ESTABLISHED WATER TABLE.
    - ANY RE-BAR AND OTHER STRUCTURAL METAL MUST BE REMOVED FROM THE RECYCLED MATERIAL DURING PROCESSING AND PLACED IN A DESIGNATED SCRAP PILE ON SITE WHICH WILL BE REMOVED ON AN ONGOING BASIS.
    - REMOVAL OF RECYCLED AGGREGATE IS TO BE ONGOING.
    - ONCE THE AGGREGATE ON SITE HAS BEEN DEPLETED, THERE WILL BE NO FURTHER IMPORTATION OF RECYCLABLE MATERIALS PERMITTED.
    - ONCE FINAL REHABILITATION HAS BEEN COMPLETED AND APPROVED IN ACCORDANCE WITH THE SITE PLAN, ALL RECYCLING OPERATIONS MUST CEASE.
    - ALL STOCKPILES OF MATERIAL TO BE RECYCLED AND/OR RECYCLED (ASPHALT AND CONCRETE) WILL BE RESTRICTED TO THE PROCESSING AREA LOCATED WITHIN PHASE 1.
20. SCRAP: SCRAP SHALL BE STORED WITHIN THE PROCESSING AREA OF PHASE 1 AND REMOVED ON A REGULAR BASIS (ANNUALLY).
21. DUST MITIGATION OF PIT: DUST SHALL BE MITIGATED ON-SITE. AN MOE APPROVED DUST SUPPRESSANT OR WATER SHALL BE USED TO CONTROL DUST ON INTERNAL ROADS AS REQUIRED, AND THE LICENSEE SHALL ENSURE THAT A WATER TRUCK IS AVAILABLE DURING DRY PERIODS.
22. INTERNAL ROADS: INTERNAL ROADS SHALL BE LOCATED AND DISBANDED AS REQUIRED. AS THE EXTRACTION OF EACH PHASE IS COMPLETED, THE APPLICABLE INTERNAL HAUL ROUTE CORRIDORS WILL BE REMOVED AND ALL AREAS WHICH HAVE BEEN SUBJECTED TO COMPACTION FROM HEAVY EQUIPMENT WILL BE CROSS-RIPPED TO A MINIMUM DEPTH OF 0.3 METRES TO ENSURE EFFECTIVE DRAINAGE.
23. VEGETATION MAINTENANCE: MAINTENANCE OF THE PROPOSED PIT SLOPES, BERMS, VEGETATION AND/OR REHABILITATED AREAS SHALL BE CARRIED OUT THROUGHOUT THE LIFE OF THE PIT. IF AREAS OF VEGETATION OR REHABILITATED VEGETATION DIES, IT SHALL BE REPLACED IMMEDIATELY (DURING THE PROPER PLANTING SEASON).
24. PIT SIDESLOPES: ALL PIT SIDESLOPES MAY BE BACKFILLED USING OVERBURDEN OR ON-SITE FINES OR CREATED BY RETAINING INSITU MATERIAL, AND WILL BE CREATED AT A 3(H):1(V) SLOPE.
25. SURFACE DRAINAGE WITHIN PIT: DURING THE ONGOING OPERATION, SURFACE WATER WILL CONTINUE TO PERCOLATE THROUGH THE GRAVEL BASE PIT FLOOR. THE FINAL PIT FLOOR FOR EACH PHASE WILL SLOPE GENERALLY IN THE DIRECTION AS NOTED ON THE PROGRESSIVE AND FINAL REHABILITATION PLAN AND POST-EXTRACTIVE SURFACE DRAINAGE WILL PERCOLATE THROUGH THE GRAVEL BASE PIT FLOOR.
26. AREA TO BE EXTRACTED: THE TOTAL AREA TO BE EXTRACTED IS 17.5 HECTARES.
27. FINAL LAND USE: THE FINAL LAND USE FOR THE SUBJECT LANDS SHALL BE AGRICULTURE, AND THEREFORE; THE REHABILITATED PIT FLOOR AREAS AND SIDESLOPES WILL BE SEEDED WITH A GRASS/LEGUME SEED MIXTURE (E.G., COMPRISING OF WHITE CLOVER, TIMOTHY, AND PERENNIAL RYE GRASS).

RECOMMENDATIONS FROM TECHNICAL REPORTS INCLUDE:

HYDROGEOLOGICAL RECOMMENDATIONS (MTZ AND ASSOC.)

1) MONITORING OF WATER LEVELS SHALL BE CONTINUED ON A QUARTERLY BASIS TO BETTER DEFINE THE GROUNDWATER TABLE ELEVATION ACROSS THE SITE AND TO ESTABLISH THE NORMAL RANGE OF SEASONAL FLUCTUATIONS IN GROUNDWATER ELEVATIONS.
2) GROUNDWATER SAMPLES SHALL BE OBTAINED FROM THE WELLS YEARLY AND ANALYZED FOR GENERAL WATER QUALITY PARAMETERS, AND MAJOR CATIONS AND ANIONS AS WELL AS GEOCHEMICAL SAMPLING BI-ANNUALLY IN ACCORDANCE WITH THE REGION OF WATERLOO'S GUIDELINES.
3) BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED THROUGHOUT THE AGGREGATE EXTRACTION OPERATIONS TO MINIMIZE THE RISK OF IMPACT TO GROUNDWATER DUE TO LEAKAGE OR SPILLAGE OF FUELS OR LUBRICANTS. FUEL STORAGE OR REFUELLING OPERATIONS OF PORTABLE EQUIPMENT ARE TO BE CARRIED OUT ON AN IMPERMEABLE PAD.

NATURAL ENVIRONMENT LEVEL 1 (DANCE ENVIRONMENTAL)

1. MONITORING OF SHALLOW GROUNDWATER ELEVATIONS ON THE SITE SHALL BE ANALYZED TO ENSURE THAT THERE IS NO CHANGE WHICH WOULD AFFECT THE ON-SITE POND, THE GRAND RIVER AND ANY OFF-SITE FISH HABITAT WHICH MIGHT BE PRESENT IN OFF-SITE DITCHES OR STREAMS.

DUST ASSESSMENT (SENES)

1) THE LICENSEE SHALL MAINTAIN A VISUAL MONITORING PROGRAM TO ENSURE TWICE DAILY VISUAL OBSERVATIONS OF THE ON-SITE ROADS AND OPERATIONS AND OF THE OFF-SITE GRAVEL ROADS ARE UNDERTAKEN. OBSERVATION OF DUST EMISSIONS WOULD REQUIRE IMMEDIATE MITIGATION MEASURES TO BE TAKEN.
2) THE LICENSEE SHALL USE BEST MANAGEMENT PRACTICES TO MITIGATE DUST INCLUDING:
   a. THE TOWNSHIP OF WOOLWICH CURRENTLY APPLIES A SINGLE APPLICATION OF CALCIUM CHLORIDE TO THE OFF-SITE HAUL ROAD ON PEEL STREET AND JIGS HOLLOW ROAD DURING THE SPRING. IN ADDITION, KUNTZ TOPSOIL, SAND AND GRAVEL LTD. SHALL APPLY A SECOND APPLICATION OF CALCIUM CHLORIDE DURING THE LATE SUMMER, AND/OR AS DIRECTED BY THE TOWNSHIP.
   b. ALL UNPAVED-ON-SITE HAUL ROADS SHALL RECEIVE AN APPLICATION OF CALCIUM CHLORIDE DURING THE SPRING, AND A SECOND APPLICATION OF CALCIUM CHLORIDE DURING THE LATE SUMMER, AND/OR AS REQUIRED.
   c. ALL UNPAVED ON AND OFF-SITE HAUL ROADS SHALL BE WATERED AT A SUFFICIENT FREQUENCY TO CONTROL DUST GENERATION DUE TO VEHICLE TRAVEL.
   d. VEHICLE SPEEDS ON ON-SITE UNPAVED HAUL ROADS SHALL REMAIN AT 20 KM/H OR LESS.
3) AN OPERATIONAL WATERING PLAN SHALL BE DEVELOPED, BASED ON THE ACTIVITY LEVELS AND METEOROLOGICAL CONDITIONS AND FOLLOWED BY TRAINED SITE PERSONNEL TO ENSURE WATERING IS COMPLETED FREQUENTLY ENOUGH TO ADEQUATELY CONTROL FUGITIVE DUST EMISSIONS AND CARRIED OUT AS DESCRIBED IN THE SENES DUST ASSESSMENT - ADDENDUM, SECTION D.2.2 (FEBRUARY, 2010).
4) SHOULD VISIBLE FUGITIVE DUST ARISE DURING THE PROCESSING OF AGGREGATE (CRUSHING AND SCREENING), AND/OR MATERIAL DROPS FROM LOADERS, EXCAVATORS AND STACKERS, THE LICENSEE SHALL INSTALL SPRAY BARS OR WILL BE SPRAYED WITH WATER OR ANOTHER APPROVED DUST SUPPRESSANT AS NECESSARY TO REDUCE WINDBLOWN DUST.
5) SHOULD VISIBLE DUST EMISSIONS FROM STORAGE PILES BECOME A PROBLEM, THE PILES WILL BE SPRAYED WITH WATER OR ANOTHER APPROVED DUST SUPPRESSANT AS NECESSARY TO REDUCE WINDBLOWN DUST.
6) A DAILY LOG OF WATER APPLICATIONS AND OTHER DUST CONTROL PROCEDURES AND OBSERVATIONS SHALL BE MAINTAINED AND BE AVAILABLE UPON REQUEST TO MOE OR MNR TO DEMONSTRATE, IF NECESSARY, THAT DUST CONTROL ACTIONS ARE BEING TAKEN.
7) THE LICENSEE SHALL ENSURE THAT THE PERIMETER BERMS BE SUFFICIENTLY VEGETATED AS FOLLOWS:
   a. PERIMETER BERMS: ALL BERMS SHALL BE VEGETATED WITH A GRASS-TYPE LEGUME.
   b. PEEL STREET BERM: IN ADDITION TO THE PLANTING OF GRASS-TYPE LEGUMES, THE PEEL STREET BERM SHALL BE PLANTED WITH A SELECTION OF DECIDUOUS AND CONIFEROUS SHRUBS AND TREE SPECIES ON THE STREET SIDE OF THE BERM SUCH THAT A GOOD SCREEN IS PRODUCED ONCE ALL PLANTS REACH THEIR ULTIMATE HEIGHT AND SPREAD. REFER TO TYPICAL BERM PLANTING DETAIL.
8) THE LICENSEE SHALL OBTAIN A MOE CERTIFICATE OF APPROVAL (IF REQUIRED BY MOE) WHICH WILL INCLUDE THE BEST MANAGEMENT PRACTICES NOTED ABOVE AS NOTES 2 - 8.

NOISE STUDY (IBI GROUP)

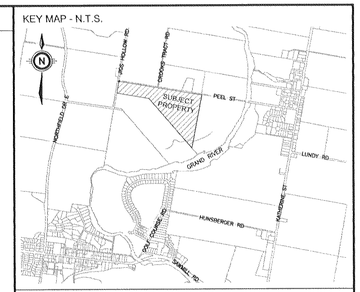
1. THAT ALL CONSTRUCTION EQUIPMENT MEET NOISE EMISSION STANDARDS OF MOE'S NPC 115, AND THAT CONSTRUCTION ACTIVITIES TAKE PLACE IN THE MONTHS OF OCTOBER TO APRIL TO AS GREAT AN EXTENT AS POSSIBLE (I.E. WHEN RESIDENTIAL WINDOWS ARE TYPICALLY CLOSED).
2. THAT TOPSOIL, SUBSOIL AND/OR OVERBURDEN FROM THE PIT WILL BE UTILIZED TO CREATE SOUND ATTENUATION EARTHEN BERMS AS SHOWN IN NOISE INFORMATION PLAN (APPENDIX A). WHERE BERMS ARE REQUIRED, THEY MUST BE PLACED AS CLOSE TO THE LIMIT OF EXTRACTION AS POSSIBLE IN ORDER TO MAXIMIZE NOISE ATTENUATION. THE BERMS MUST BE VEGETATED WITH A GROUND COVER IN ORDER TO PROVIDE MAXIMUM GROUND ABSORPTION OF NOISE AND STABILIZE THE BERMS TO PREVENT EROSION.

   EARTHEN BERMS ARE TO BE CONSTRUCTED AS PART OF THE PIT START-UP AND REMAIN N PLACE UNTIL FINAL PIT REHABILITATION. THE PROPOSED BERMS ARE AS SHOWN IN THE NOISE INFORMATION PLAN AND DESCRIBED AS FOLLOWS:
   a. ALONG THE NORTHERN EXTRACTION LIMIT WITH A HEIGHT OF 6.0M. THE ELEVATION ALONG THE TOP OF THE BERM SHALL BE APPROXIMATELY 327.0.
   b. ALONG THE EAST EXTRACTION LIMIT WITH A HEIGHT OF 3.5M. THE ELEVATION ALONG THE TOP OF BERM SHALL BE APPROXIMATELY 324.5.
   c. ALONG THE WEST EXTRACTION LIMIT WITH A HEIGHT OF 5.0M. THE ELEVATION ALONG THE TOP OF BERM SHALL BE APPROXIMATELY 325.5.
   d. SURROUNDING THE PROCESSING EQUIPMENT, WITH A HEIGHT OF 9.5M. THE ELEVATION ALONG THE TOP OF THE BERM SHALL BE APPROXIMATELY 326.0.
3. THAT EXTRACTION AND PROCESSING ACTIVITY WITHIN THE PIT, INCLUDING INITIAL START-UP AND ONGOING OPERATIONS, SHALL TAKE PLACE ONLY BETWEEN THE HOURS OF 0700 AND 1900 MONDAY TO FRIDAY. NO CONSTRUCTION SHOULD TAKE PLACE ON SATURDAYS, SUNDAYS OR STATUTORY HOLIDAYS.
4. THAT ALL EXTRACTION OPERATIONS WITHIN EACH PHASE SHALL GENERALLY MOVE TOWARD THE NEAREST RECEIVER LOCATION TO MAXIMIZE THE EFFECTIVENESS OF THE PIT'S FACE FOR THE PURPOSE OF NOISE ATTENUATION.
5. THAT THE EXTRACTION LIFTS SHALL BE MAXIMIZED IN HEIGHT TO BEST UTILIZE THE PIT FACE DURING EXTRACTION FOR NOISE ATTENUATION.
6. THAT THE PROCESSING AREA SHALL HAVE THE FOLLOWING REQUIREMENTS IN ORDER TO REDUCE THE IMPACTS FROM THE PROCESSING EQUIPMENT:
   a. THE PROCESSING AREA WILL BE LOCATED AT A DISTANCE OF 450M MAXIMUM AWAY FROM RECEIVER G IN THE SOUTHERN SECTION OF THE PIT.
   b. THE PROCESSING AREA WILL HAVE A PERIMETER BERM TO MITIGATE NOISE PRODUCED BY THE PROCESSING EQUIPMENT.
7. THAT THE LOADING OF AGGREGATE FROM STOCKPILES SHOULD BE COMPLETED AS MUCH AS POSSIBLE ON THE SIDE FARTHEST FROM THE CLOSEST SENSITIVE RECEIVER LOCATION SO AS TO BEST UTILIZE THE STOCKPILES FOR NOISE ATTENUATION.
8. THAT TWICE ANNUALLY THE PIT OPERATOR MUST MONITOR THE NOISE LEVELS AT ALL THE RECEIVER LOCATIONS TO ENSURE NOISE LEVELS ARE KEPT WITHIN THE ESTABLISHED CRITERIA. ALL MONITORING MUST BE CONDUCTED BY A QUALIFIED ACOUSTICAL ENGINEER AND SHALL FOLLOW THE GUIDELINES AND SPECIFICATIONS OUTLINED IN NPC 233 "INFORMATION TO BE SUBMITTED FOR APPROVAL OF STATIONARY SOURCES OF SOUND". AN ANNUAL REPORT MUST BE ISSUED TO THE MINISTRY OF THE ENVIRONMENT (MOE) AND MINISTRY OF NATURAL RESOURCES (MNR).
9. ALTERNATIVE WARNING TECHNOLOGIES, [BACK-UP BEEPERS] SUCH AS THE USE OF BROAD BAND ALARMS SHALL BE USED BY ON-SITE EXTRACTION EQUIPMENT WHERE POSSIBLE. THESE TECHNOLOGIES MUST BE
   i) APPROVED BY MOL;
   ii) FOUND TO BE FEASIBLE TO REDUCE OFF-SITE NOISE IMPACTS;
   iii) MAINTAIN THE SAFETY FUNCTION.

ARCHAEOLOGICAL STUDY (ARCHAEOLOGICAL RESEARCH ASSOCIATES LTD.)

1) SHOULD PREVIOUSLY UNKNOWN OR UN-ASSESSED DEEPLY BURIED ARCHAEOLOGICAL RESOURCES BE UNCOVERED DURING DEVELOPMENT, 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 ARCHAEOLOGIST TO CARRY OUT ARCHAEOLOGICAL FIELDWORK, IN COMPLIANCE WITH SECTION 48 (1) OF THE ONTARIO HERITAGE ACT.
2) ANY PERSON DISCOVERING HUMAN REMAINS MUST IMMEDIATELY NOTIFY THE POLICE OR CORONER AND THE REGISTRAR OF CEMETERIES. MINISTRY OF GOVERNMENT SERVICES. ALL WORK IN THE VICINITY OF THE DISCOVERY WILL BE SUSPENDED IMMEDIATELY. OTHER GOVERNMENT STAFF MAY BE CONTACTED AS APPROPRIATE; HOWEVER, MEDIA CONTACT SHOULD NOT BE MADE IN REGARD TO THE DISCOVERY.

KEY MAP - N.T.S.



LEGEND

- LICENSED / PROPERTY BOUNDARY
- LIMIT OF EXTRACTION
- LOT AND CONCESSION LINES
- PROPOSED SWALE
- PHASE LINE
- EXISTING HYDRO WIRES
- FENCE LINE
- GRCA FLOODLINE
- EXISTING TREELINE
- EXISTING TREE
- PROPOSED ENTRANCE / EXIT
- 1 — PHASE
- 320.5 / 315.5 — EXISTING ELEVATION / FINAL PIT FLOOR ELEVATION
- DIRECTION OF EXTRACTION

No.	DATE	BY	SITE PLAN AMENDMENTS

No.	DATE	BY	REVISIONS PRIOR TO APPROVAL
1	JUNE 8,2010	CD	MODIFIED BERM HEIGHTS AND DUST RECOMMENDATIONS

THESE SITE PLANS ARE CERTIFIED BY THE UNDERSIGNED BY THE AUTHORITY OF MINISTERIAL APPROVAL AS SPECIFIED IN THE AGGREGATE RESOUCES ACT SECTION 8 (4) FOR A CLASS A, LICENCE CATEGORY 3 PIT.

DECEMBER 15, 2008
DATE
DAVID B. SISCO, RPP, MCIP

SCALE
30 15 0 25 50 100
1:2500 (m)

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379 QUEEN STREET SOUTH
KITCHENER, ONTARIO
N2G 1W6
(519) 745-9455
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PART OF LOT 3
BROKEN FRONT CONCESSION - CROOKS TRACT
TOWNSHIP OF WOOLWICH
REGION OF WATERLOO

JIGS HOLLOW PIT

OPERATIONAL PLAN

PEIL FILE No.
19673 (KP-07-2027)

SHEET NO.
2 OF 4

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LAST SAVED BY: Chris.dewar, Thursday, June 10, 2010 10:34:11 AM PLOTTED BY: Chris Dewar Thursday, June 10, 2010 1:34:24 PM