

**NOTES:**

BOUNDARY DIMENSIONS SHOWN HEREON ARE DERIVED FROM EXISTING FIELD NOTES OF D.S. DORLAND LTD., O.L.S., DATED FEB. 2006 (FILE 14482). THIS IS NOT A PLAN OF SURVEY AND SHOULD ONLY BE USED FOR THE PURPOSES NOTED IN THE TITLE BLOCK.

THE TOPOGRAPHICAL CONTOUR INFORMATION & SPOT ELEVATIONS SHOWN HEREON WERE OBTAINED FROM CITY OF GREATER SUDBURY MAPPING PRODUCED FROM ORTHOPHOTO INFORMATION CAPTURED IN MAY 2017.

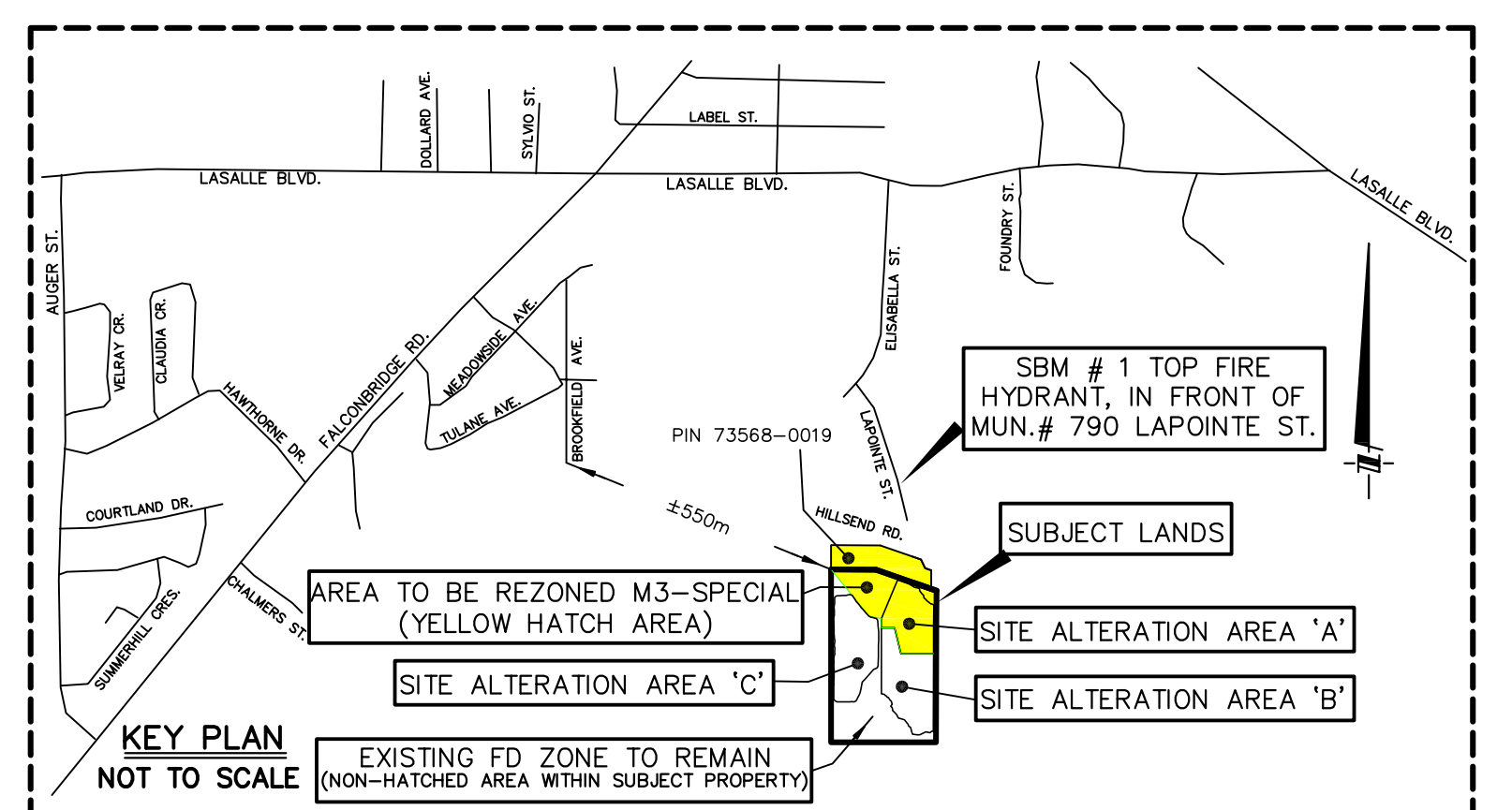
THE ONLY EXCEPTION TO THE AFORE MENTIONED INCLUDES THE GRAVEL ROADS, GRAVEL STORAGE AREAS & CULVERTS, SHOWN WITHIN THE SUBJECT PROPERTY. THESE FEATURES WERE OBTAINED FROM FIELD SURVEYS COMPLETED ON APRIL 17, 2019.

CONTOUR INTERVAL = 1.0m

A DUST PREVENTATIVE (CALCIUM CHLORIDE) SHALL BE PLACED ON THE GRAVEL SURFACES, AS REQUIRED FOR DUST CONTROL.

THE FINAL GRADES IN AREA 'A' WILL INCLUDE A TOPPING OF GRANULAR A MATERIAL.

THE FINAL GRADES IN AREA 'B' WILL REMAIN AS POST EXCAVATION ROCK GRADES.



- SILTATION & EROSION CONTROL MEASURES:**
- PROTECTION OF AREA WATER QUALITY IS PARAMOUNT, AND AS SUCH, THE CONTRACTOR IS EXPECTED TO ADOPT THE FOLLOWING MINIMUM MEASURES:
1. THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE PERFORMED BY METHODS THAT WILL PREVENT ENTRANCE, OR ACCIDENTAL SPILLAGE, OF SOLID MATTER, CONTAMINANTS AND WASTE INTO STREAMS, WATER SOURCES INCLUDING BUT NOT RESTRICTED TO, RIVERS, GRABAGE, GULLIES, CONCRETE, INDUSTRIAL WASTE, OIL AND OTHER PETROLEUM PRODUCTS, HEAVILY MINERALIZED ROCK, AND THERMAL POLLUTION.
  2. ALL VEGETATED COVER NOT SPECIFIED FOR REMOVAL, SHALL BE PRESERVED IN ORDER TO MINIMIZE EROSION AND SEDIMENTATION.
  3. WATERCOURSES SHALL NOT BE DIVERTED OR BLOCKED AND TEMPORARY WATER CROSSINGS SHALL NOT BE CONSTRUCTED OR UTILIZED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
  4. CONSTRUCTION MATERIAL, SURPLUS MATERIAL, CONSTRUCTION DEBRIS, AND EMPTY CONTAINERS SHALL BE STORED AWAY FROM WATERCOURSES.
  5. VEHICULAR MAINTENANCE AND REFUELING SHALL BE CONDUCTED AWAY FROM WATERCOURSES.
  6. CONSTRUCTION EQUIPMENT SHALL NOT BE PERMITTED TO WORK FROM WITHIN A WATERCOURSE OR FORD A WATERCOURSE AT ANY TIME.
  7. THE CONTRACTOR SHALL COMPLETE THE WORK IN A TIMELY AND DILIGENT MANNER TO MINIMIZE POTENTIAL IMPACTS ON AREA WATERCOURSES.
  8. SEDIMENT BARRIERS, CHECK DAMS, AND TEMPORARY CONSTRUCTION ACCESS TO BE INSTALLED PRIOR TO THE BEGINNING OF CONSTRUCTION.
  9. SILTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ON THE SITE HAVE BEEN STABILIZED.
  10. ALL SILTATION CONTROL MEASURES SHALL BE INSPECTED DAILY TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY, AND REPAIRED IF NECESSARY.
  11. IF THE SILTATION CONTROL MEASURES ARE NOT FUNCTIONING PROPERLY, CORRECT THE MEASURES BEFORE CONTINUING OTHER CONSTRUCTION WORKS.
  12. A LOG BOOK SHALL BE KEPT ON SITE INDICATING INSPECTION SCHEDULES, REPAIRS MADE, & ANY CONCERNS NOTED.

**BENCHMARKS**

ELEVATIONS SHOWN HEREON HAVE BEEN OBSERVED USING SIMULTANEOUS REAL-TIME KINEMATIC GPS OBSERVATIONS WHICH ARE DIRECTLY RELATED TO THE GRS80 ELLIPSOID OF NAD83(CRS, 2002.0) AND HAVE BEEN CONVERTED TO CGVD28 HEIGHTS USING THE HT 2.0 NATIONAL HEIGHT TRANSFORMATION AS PROVIDED BY NATURAL RESOURCES CANADA.

WHERE PRACTICAL, THE DIRECT RELATIONSHIP OF THESE CONVERTED ELEVATIONS TO THE CGVD28 VERTICAL DATUM HAVE BEEN CONFIRMED BY OBSERVING LOCAL BENCHMARKS.

SITE BENCH MARK # 1 IS THE ON TOP OF THE FIRE HYDRANT IN FRONT OF MUNICIPAL #790 LAPONTE STREET ("WHITE SERVICES LIMITED" BUILDING), AS SHOWN ON THE KEYPLAN, HAVING AN ELEVATION OF 270.45 METERS.

SITE BENCH MARK # 2 IS ON TOP OF AN INSERT, ON THE WEST SIDE OF THE EXISTING GRAVEL ROAD, SHOWN HEREON (IN THE MIDDLE OF THE SUBJECT PROPERTY), HAVING AN ELEVATION OF 303.31 METERS.

- METRIC NOTE**
- DISTANCES & ELEVATIONS SHOWN ON THIS PLAN ARE IN METERS AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048
- LEGEND**
- PIN LT DENOTES PROPERTY IDENTIFIER NUMBER
  - 292.1 DENOTES SPOT ELEVATION FROM CITY OF GREATER SUDBURY MAPPING
  - + (282.5EX) DENOTES EXISTING ELEVATION TO REMAIN
  - + (289.00) DENOTES PROPOSED ELEVATION
  - + (289.20) DENOTES PROPOSED INVERT ELEVATION
  - DENOTES PROPOSED DRAINAGE FLOW/GRADE DIRECTION
  - DENOTES PROPOSED SWALE DRAINAGE DIRECTION
  - SBM DENOTES SITE BENCHMARK
  - AND BOUNDARY BETWEEN EXISTING ZONE FD (TO REMAIN) & PROPOSED ZONE M3-SPECIAL
  - DENOTES 30m SETBACK FROM WETLAND AREA/WATER COURSE AND/OR 15m SETBACK FROM WETLAND AREA/WATER COURSE AND/OR 10m SETBACK FROM PROPERTY LINE AND/OR FUTURE 26m R.O.W.
  - DENOTES PROPOSED DRAINAGE DIVIDE LINE (HIGH POINT)
  - DENOTES PROPOSED CONTOURS IN ROCK EXCAVATION AREA (RED COLOUR)
  - DENOTES PROPOSED CONTOURS IN SHOT ROCK LAY DOWN (FILL PILE) AREA (PURPLE COLOUR)
  - DENOTES PROPOSED STRAW BALE FLOW CHECK DAM (SEE OPSD 219.180)
  - DENOTES PROPOSED SILTATION CONTROL FENCE (SEE OPSD 219.110)

AREAS	SITE ALTERATION 'A' AREA CUT & FILL VOLUME INFORMATION
AREA OF SITE ALTERATION 'A' = ± 3.90 ha.	FILL VOLUME = 146 cubic meters
AREA OF SITE ALTERATION 'B' = ± 5.56 ha.	CUT VOLUME = 229,146 cubic meters
AREA OF SITE ALTERATION 'C' = ± 5.38 ha.	NET CUT VOLUME = 229,000 cubic meters
TOTAL AREA OF SITE ALTERATION = ± 14.84 ha.	
AREA OF SUBJECT PROPERTY = 24.83 ha. (PIN 73568-0040)	

SITE ALTERATION 'B' AREA CUT & FILL VOLUME INFORMATION
FILL VOLUME = 8,355 cubic meters
CUT VOLUME = 107,458 cubic meters
NET CUT VOLUME = 99,103 cubic meters

**TOTAL SITE ALTERATION 'A' & 'B' CUT VOLUME INFORMATION**

TOTAL NET CUT VOLUME = 229,000 + 99,103 = 328,103 cubic meters

TOTAL BULKUP VOLUME (SHOT ROCK) = 328,103 x 1.5 = 492,154 cubic meters

**SITE ALTERATION 'C' AREA FILL VOLUME INFORMATION**

FILL VOLUME = 492,154 cubic meters

BOUNDARY AND TOPOGRAPHICAL INFORMATION PROVIDED BY D.S. DORLAND LIMITED, O.L.S.

DATE: SUDBURY, ONTARIO

D.S. DORLAND ONTARIO LAND SURVEYOR

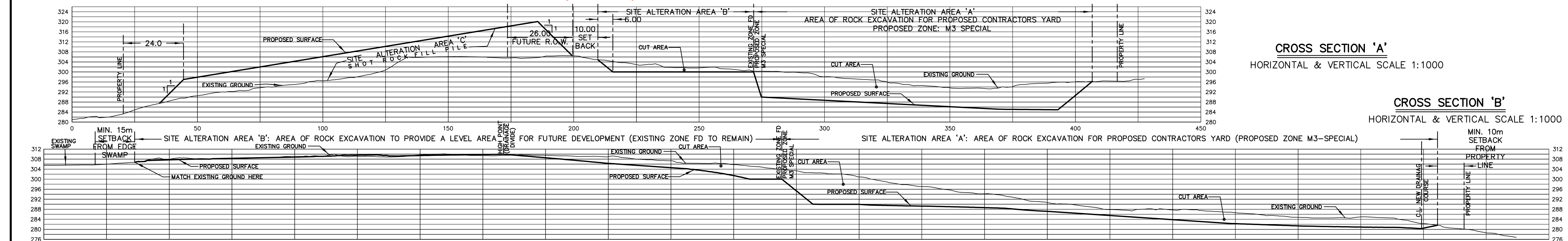


**CROSS SECTION 'A'**

HORIZONTAL & VERTICAL SCALE 1:1000

**CROSS SECTION 'B'**

HORIZONTAL & VERTICAL SCALE 1:1000



CONTROL PLAN DESIGN PROFESSIONAL EXP. SERVICES INC.

02/03/2021

DATE: SUDBURY, ONTARIO

MARK LANGILLE PROFESSIONAL ENGINEER

REVISION 1: MARCH 2, 2021: ADDED SILTATION CONTROL FENCING

**D.S. DORLAND LIMITED**

ONTARIO LAND SURVEYORS GEOMATICS PROFESSIONALS

298 LARCH STREET SUDBURY, ONTARIO, P3B 1M1

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PREPARED BY: A.A. SCALE: 1:1000 METRIC

DATE: DEC 22 2020 CAD FILE: 18016-SITE ALTERATION-revision1.dwg

FIELD: CM/CW P. SPACE: TAB-SITE ALTERATION-stamped signed