

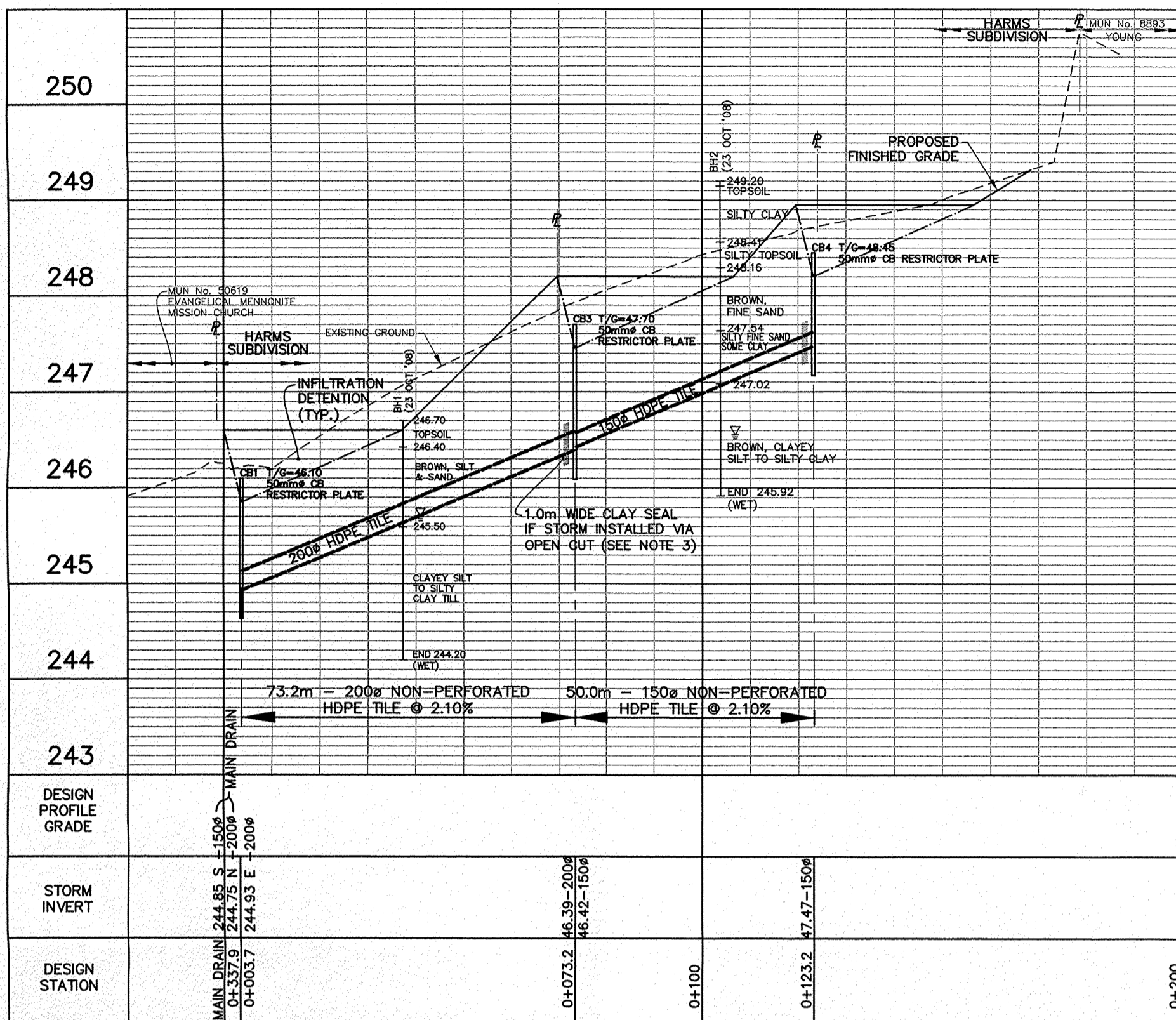
MUNICIPAL DRAIN NOTES

1. THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL EXISTING DRAINS ENCOUNTERED, WHETHER SHOWN ON DRAWINGS OR NOT AND SHALL WHERE REQUESTED, CONNECT THE DRAINS INTO STORM SEWERS. CONNECTIONS SHALL BE MADE AT UNIT PRICES BID FOR STORM SEWER AS DIRECTED BY THE ENGINEER. ANY ABANDONED SEWERS SHALL BE PLUGGED WITH CEMENT MORTAR.
2. ALL SEWERS AND WATERMANS, INCLUDING CATCHBASIN LEADS AND PRIVATE DRAIN CONNECTIONS, WHETHER EXISTING OR INSTALLED BY THIS CONTRACT, WHICH ARE EXPOSED BY A TRENCH, EXCAVATED FOR A PIPE CROSSING TO BE INSTALLED AT A LOWER GRADE OR UNDERMINED FOR ANY OTHER REASON, SHALL BE SUPPORTED WITH WELL-COMPACTED H.3 STONE BEDDING EXTENDING TO THE LOWER PIPE BEDDING, COVERED WITH BEDDING GEOTEXTILE.
3. STORM DRAIN SHALL BE NON-PERFORATED CORRUGATED HDPE TUBING (BIG 'O'), INSTALLATION MAY BE VIA TRENCHING MACHINE, HENCE GRANULAR PIPE BEDDING NOT REQUIRED AND NATIVE BACKFILL IS ACCEPTABLE. CATCHBASIN SHALL HAVE GRANULAR BACKFILL PLACED FOR 300mm MINIMUM ON ALL SIDES. IF STORM DRAIN IS INSTALLED VIA OPEN CUT TRENCH, 150mm (MIN.) H.3 STONE BEDDING REQUIRED BENEATH AND BESIDE DRAIN, WITH 300mm (MIN.) ON TOP.
4. THE CONTRACTOR SHALL INSTALL ANY SILT CONTROL MEASURES REQUIRED TO STOP SILT MIGRATION FROM ENTERING STORM SEWERS, TO THE SATISFACTION OF THE MINISTRY OF NATURAL RESOURCES, CATFISH CREEK CONSERVATION AUTHORITY, MINISTRY OF THE ENVIRONMENT OR ANY OTHER REGULATORY AGENCY OR MINISTRY AND, IN PARTICULAR, TO THE GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES (MNR). THE CONTRACTOR SHALL ASSUME THE DEFENSE OF AND INDEMNIFY AND SAVE HARMLESS THE TOWN OF AYLMER, PETER AND MARY ANNE HARMS OR JOHN HARMS AND CYRIL J. DEMEYRE LIMITED FROM ALL FINES, CHARGES AND CLAIMS RELATING TO THE PROJECT FROM ANY REGULATORY AGENCY OR MINISTRY, THE FOREGOING TO BE INCLUDED IN PIPE PRICES ETC.
5. RESTORATION SHALL BE INCLUDED IN UNIT PRICES, ETC. UNLESS OTHERWISE NOTED IN THE FORM OF TENDER. ALL GRASSES AREAS DISTURBED SHALL BE RESTORED WITH 100mm TOPSOIL (OR GREATER TO MATCH EXISTING) AND HYDROSEDED AS DIRECTED BY ENGINEER UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL CORRECT ANY MINOR EROSION AND BE RESPONSIBLE FOR MAINTENANCE UNTIL GROWTH IS ESTABLISHED.

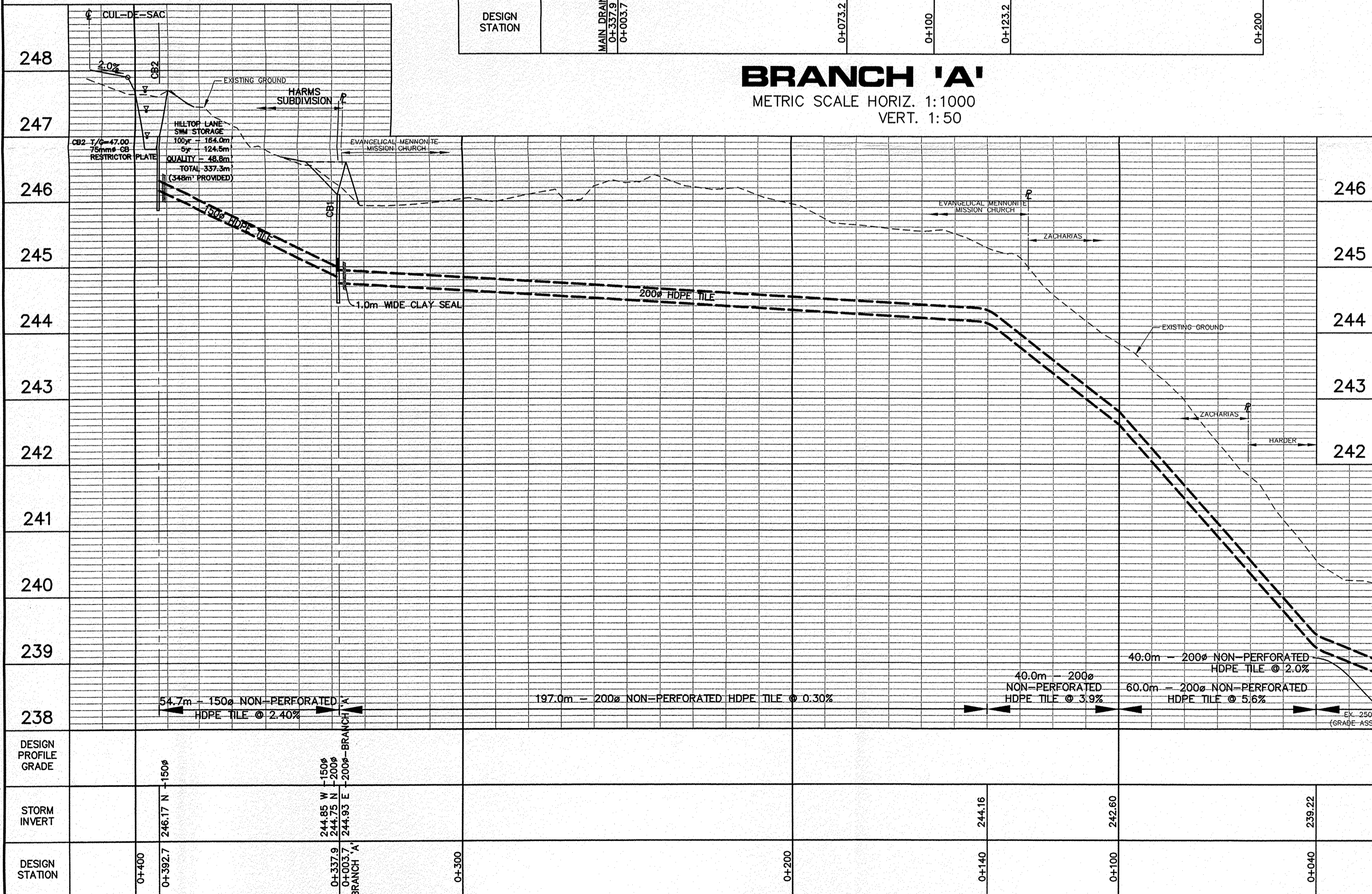
- SEDIMENT CONTROL MEASURES**
- CONTROL SEDIMENT IN SWALES AND TO STORMWATER MANAGEMENT AREAS WITH SILT FENCES & STRAW BALES UNTIL GROWTH IS ESTABLISHED. ALL IN ACCORDANCE WITH THE GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES, BY MNR.
 - PROTECT ALL EXPOSED SURFACES AND CONTROL ALL RUNOFF DURING CONSTRUCTION.
 - ALL EROSION CONTROL MEASURES TO BE IN PLACE BEFORE STARTING CONSTRUCTION AND REMAIN IN PLACE UNTIL RESTORATION IS COMPLETED.
 - MAINTAIN AREA DISTURBED DURING CONSTRUCTION.
 - PROTECT ALL CATCH BASINS AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE (TERRAFIX 270 R).
 - KEEP ALL Sumps CLEAN DURING CONSTRUCTION.
 - STRAW BALES TO BE USED IN LOCALIZED AREAS AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR WORKS WHICH ARE IN OR ADJACENT TO FLOOD LINES, FILL LINES AND HAZARDOUS SLOPES.

SEE DWG. 2 FOR SWM INFILTRATION BASINS DETAIL. MUNICIPAL DRAIN INCLUDES CATCHBASINS AND RESTRICTOR PLATES. SWM INFILTRATION BASINS INCLUDING 150mm ϕ PERFORATED HDPE TILE WILL BE OWNED AND MAINTAINED BY PROPERTY OWNER.

SWM IS IN GENERAL COMPLIANCE WITH 'PRELIMINARY STORMWATER MANAGEMENT REPORT' (C.O.L., 2010).



BRANCH 'A'
METRIC SCALE HORIZ. 1:1000
VERT. 1:50

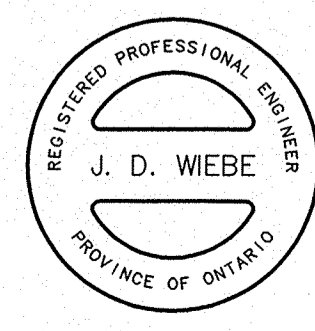


MAIN DRAIN EXTENSION

METRIC SCALE HORIZ. 1:1000
VERT. 1:50

LEGEND

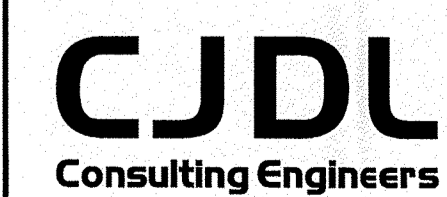
- PROPOSED STORM DRAIN, EXISTING
- PROPOSED CATCHBASIN, EXISTING
- METRIC CONTOUR ELEVATIONS IN METRES
- SUBDIVISION LIMITS
- PROPOSED EXTERNAL, INTERNAL TRIBUTARY LIMITS
- EXISTING TRIBUTARY LIMITS
- PROPOSED SWM/INFILTRATION AREA



METRIC SCALE AS SHOWN

No.	REVISION	DATE	BY
2	CORRECT HARMS, JOHN & MARY ROLL NUMBER	5 MAY 2014	D.J.L.
1	CORRECT PRE-DEV. TRIB. AREA AND SWM STORAGE FOR M.O.E. SUBMISSION	24 MAR 2014	D.J.L.

TOWNSHIP OF MALAHIDE

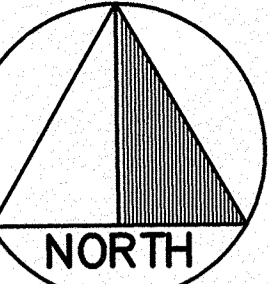


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SUMMERS CORNERS/HARMS SUBDIVISION
PETER AND JOHN HARMS
G.A. SUMMERS MUNICIPAL
DRAIN EXTENSION (2013)
AND BRANCH 'A'

DESIGN BY: D.J.L. DRAWN BY: M.J.R. CHECKED BY: J.D.W.
PROJECT NO. 0009 SURVEY BY: C.J.D.L. DATE: 21 MAR 2014

DRAWING No. **3**



SCALE 1:1000

COUNTY ROAD No. 40

SPRINGFIELD ROAD

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