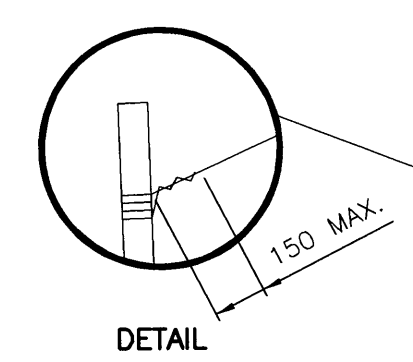


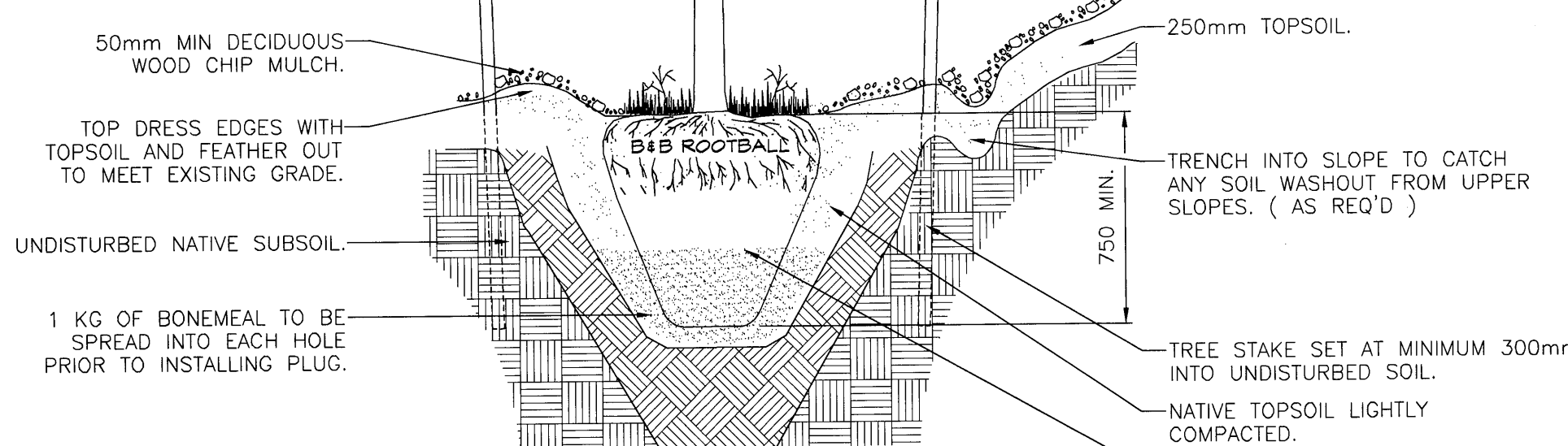
D SIZE 22" x 34" (558mm x 863mm)

NOTES:

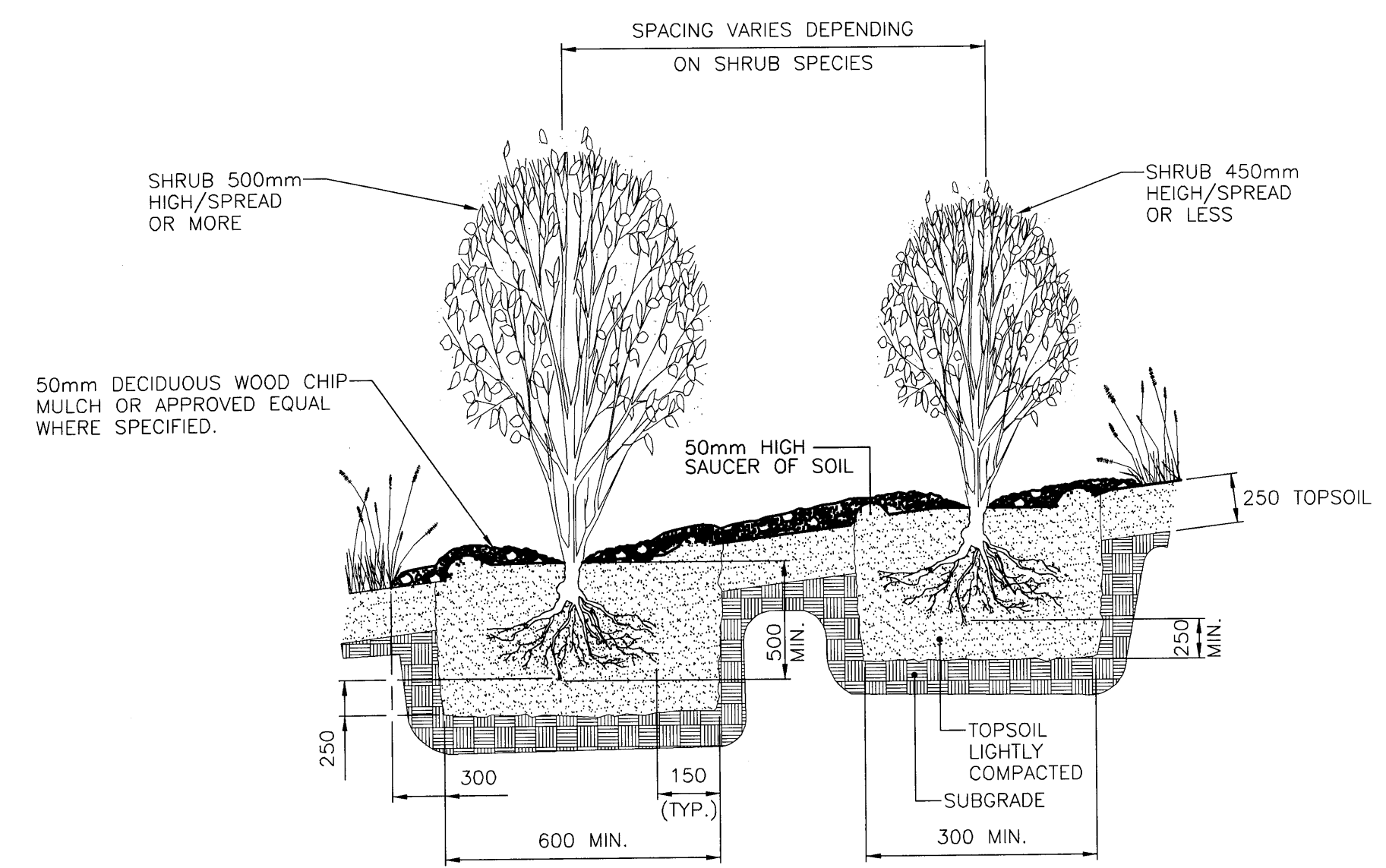
1. POSITION TREE STAKES INTO DIRECTION OF PREVAILING WINDS.
2. ALL TREE STAKES TO MAINTAIN MINIMUM 1.0m CLEARANCE FROM ALL U.G. POWER, TELEPHONE AND GAS ALIGNMENTS.
3. DIG ALL ROOT HOLES BY HAND WHEN CLOSER THAN 1.0m TO U.G. POWER, TELEPHONE AND GAS ALIGNMENTS.



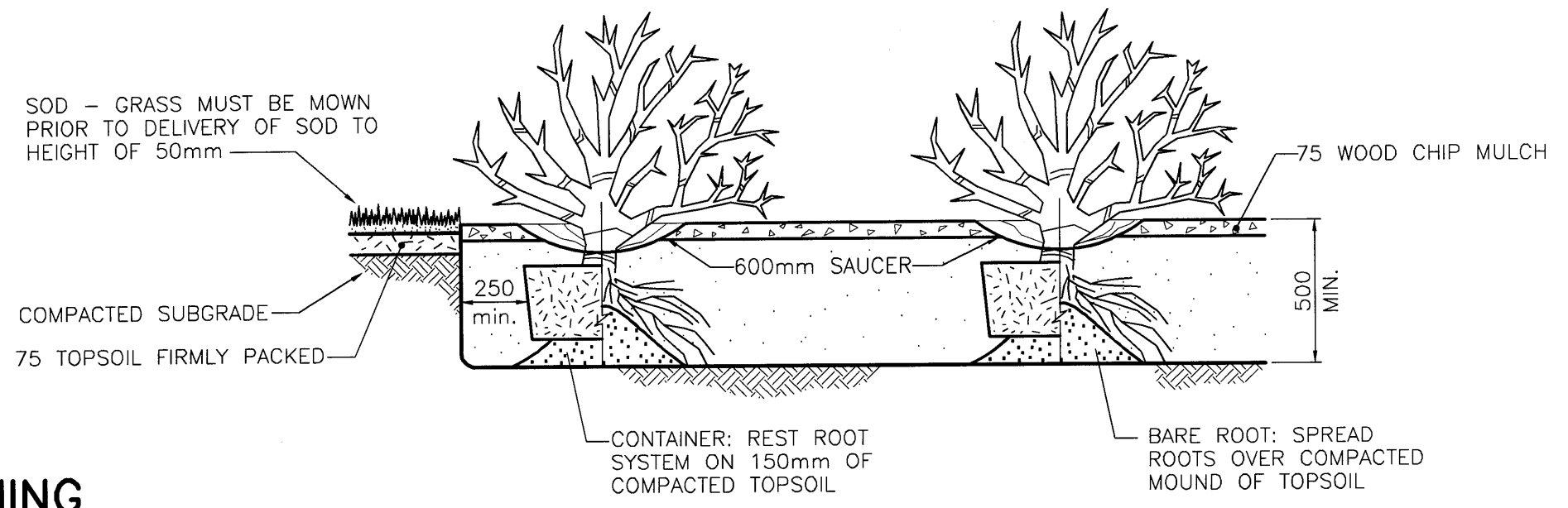
DETAIL



TREE PLANTING DETAIL - DECIDUOUS



SHRUB & WHIP TREE PLANTING - AREA C

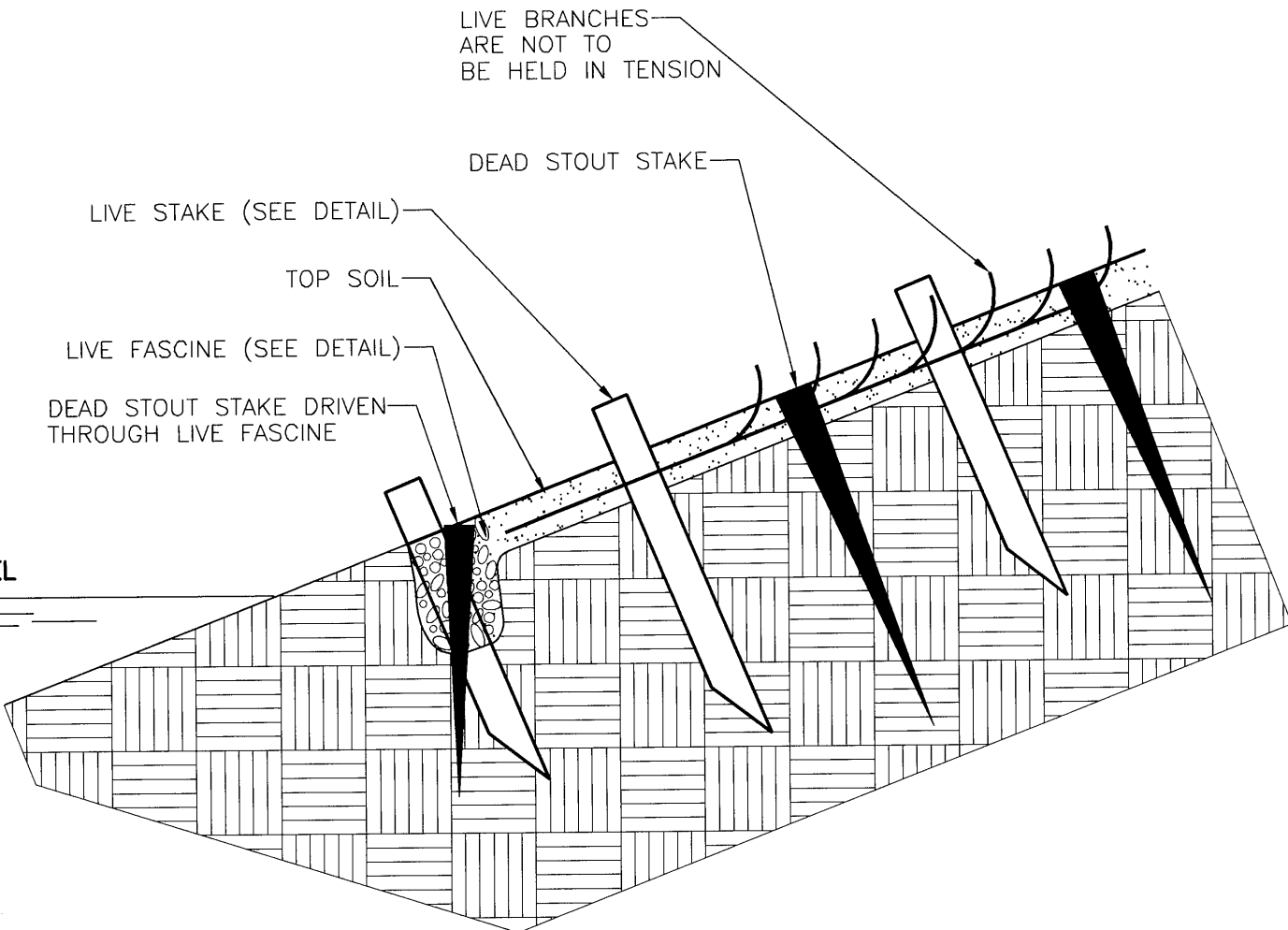


TYPICAL SHRUB PLANTING DETAIL - AREAS A & B

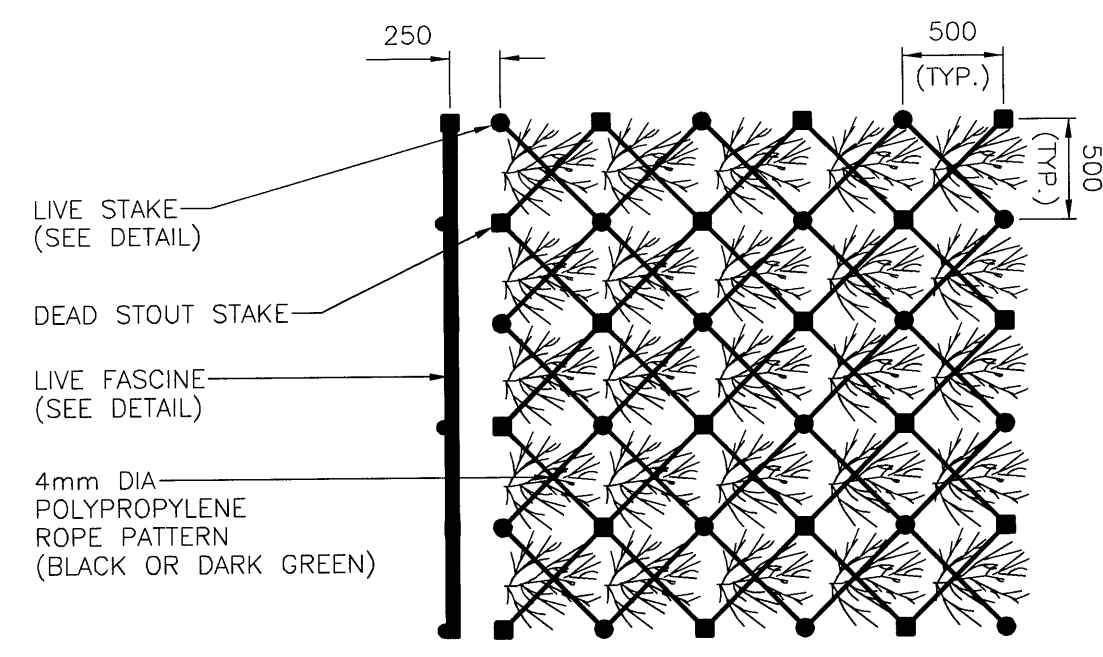
* PRUNE ONLY DEAD, OR DISEASED TREE LIMBS. MAINTAIN TREE FORM

BRUSH MATTRESS INSTALLATION METHOD

1. BRANCHES MUST BE FRESH AND KEPT MOIST FROM TIME OF INITIAL COLLECTION UNTIL INSTALLATIONS. BRANCHES MUST BE 12-24mm IN DIA.
2. BRANCHES MUST BE INSTALLED WITHIN 8 HOURS OF COLLECTION.
3. SLOPES TO BE SMOOTH, COMPACTED AND CAREFULLY SHAPED TO A MAXIMUM SLOPE OF 3:1 (H:V).
4. EXCAVATE TRENCH AT SLOPE BASE AND PLACE LIVE FASCINE INTO TRENCH.
5. TAMP LIVE STAKES AND DEAD STAKES OVER SLOPE FACE IN SQUARE PATTERN AS SHOWN IN PLAN VIEW BELOW.
6. PLACE BASAL ENDS OF BRUSH MATTRESS AT BASE OF SLOPE UNDER THE LIVE FASCINE WITH THE GROWING TIPS DIRECTED TOWARD THE TOP OF BANK. BRANCHES SHOULD LIE SMOOTHLY AGAINST THE BANK WITH NO MAJOR BARE SPOTS.
7. DRIVE DEAD STOUT STAKES DIRECTLY THROUGH THE LIVE FASCINE BUNDLES.
8. DRIVE DOWN MATTRESS BRANCHES AS CLOSE TO SLOPE FACE AS POSSIBLE USING THE LIVE AND DEAD STOUT STAKES.
9. COVER WITH TOPSOIL ENSURING THE SMALLER BRANCHES ARE VISIBLE.



BRUSH MATTRESS - TYPICAL SECTION



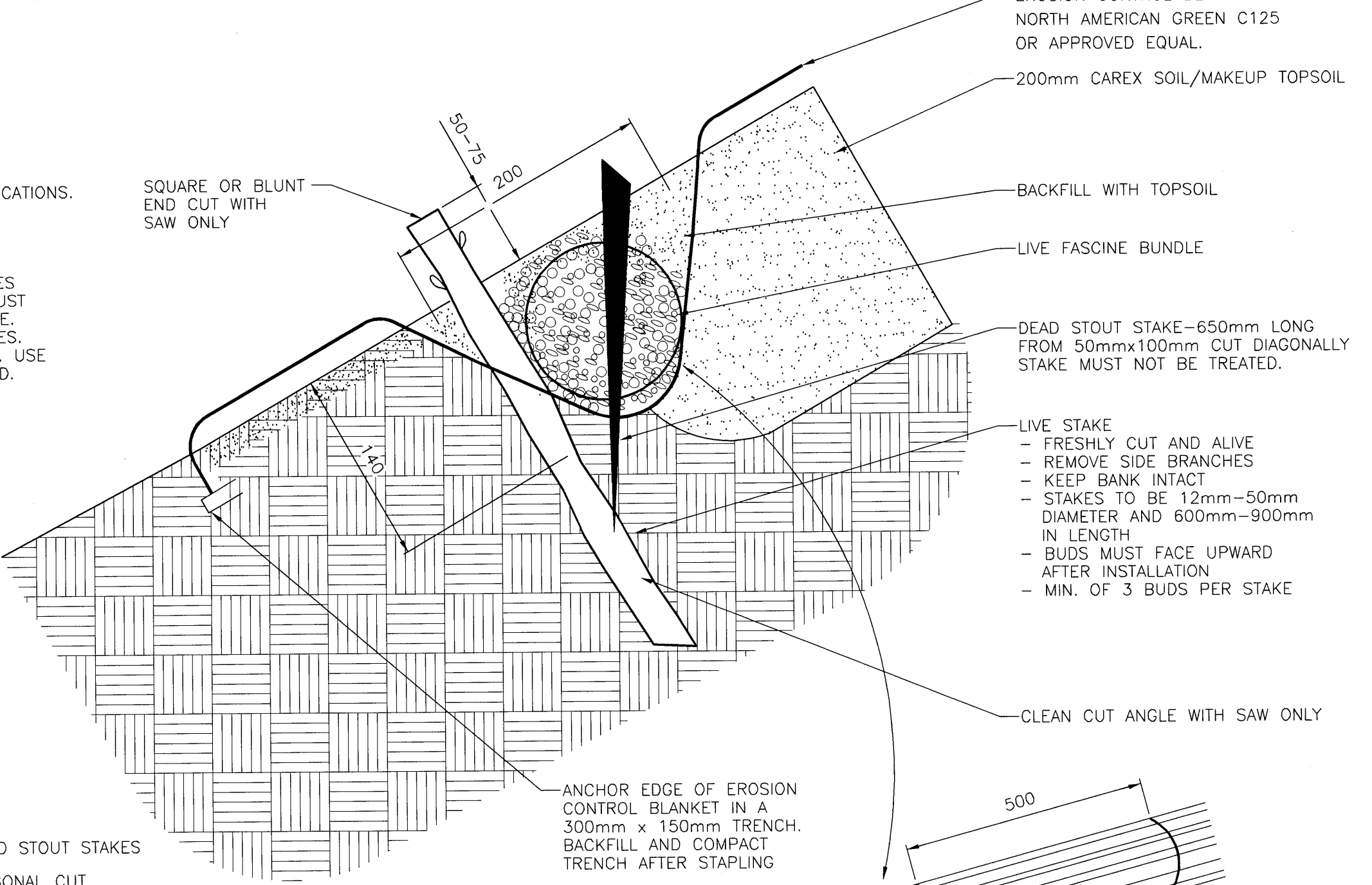
BRUSH MATTRESS - PLAN

FASCINE INSTALLATION METHOD

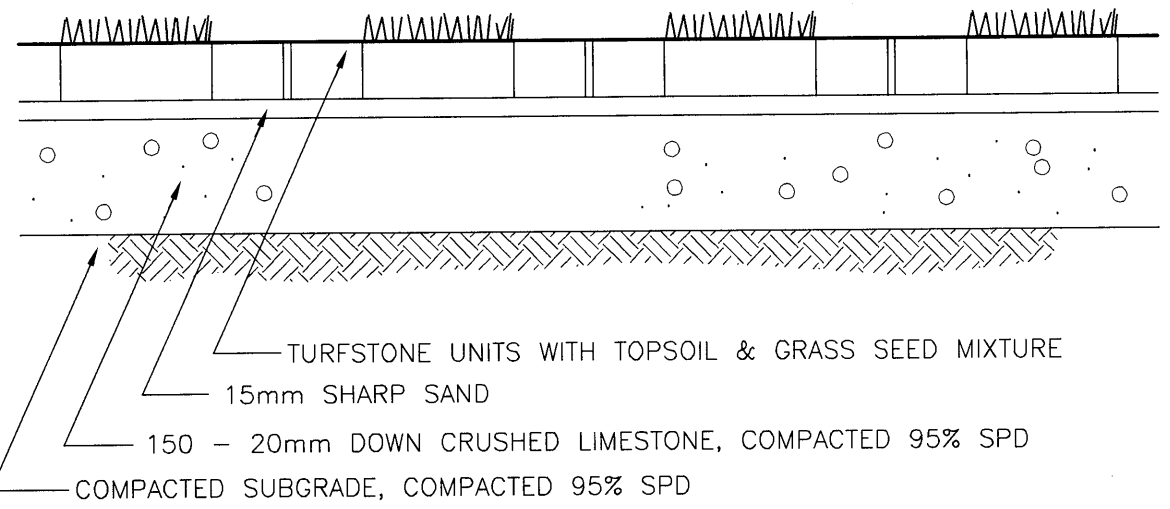
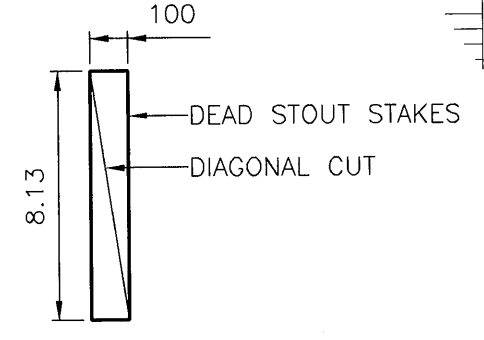
1. GRADE SLOPE SMOOTH.
2. EXCAVATE TRENCH APPROX. 140mm DEEP x 200mm WIDE.
3. CUTTINGS MUST BE FRESH AND KEPT MOIST FROM TIME OF INITIAL COLLECTION UNTIL INSTALLATION, SOAK 24 HOURS.
4. CUTTINGS MUST BE INSTALLED BEFORE LEAF OUT WITH BUDS POINTING UP.
5. SAW-CUTS ONLY ARE ACCEPTABLE.
6. LAY DOWN EROSION CONTROL BLANKET AND STAKE TO MANUFACTURER'S SPECIFICATIONS.
7. PLACE LIVE FASCINE BUNDLE WITH ALL GROWING TIPS ORIENTATED IN THE SAME DIRECTION INTO TRENCH. BUNDLES CAN VARY IN LENGTH (1.5m-5.0m).
8. DRIVE DEAD STOUT STAKES DIRECTLY THROUGH BUNDLE 750mm O.C. ALONG FASCINE LENGTH.
9. PLACE TOPSOIL ALONG SIDES OF LIVE FASCINE AND AROUND DEAD STOUT STAKES AND TAMP IN WITH FOOT. ENSURE TOP BRANCHES ARE NOT COVERED. SOIL MUST BE WORKED IN AROUND BUNDLE. NO VOIDS WILL BE ACCEPTED AROUND FASCINE.
10. TAMP LIVE STAKES INTO GROUND ON THE DOWNSLOPE SIDE OF FASCINE BUNDLES. SPACING TO BE 1000mm O.C. AND OFFSET 500mm FROM DEAD STOUT STAKES. USE DEAD BLOW HAMMER ONLY. NO MUSHROOM OR SPLIT STAKES WILL BE ACCEPTED.
11. SEE BRUSH MATTRESS DETAIL AND PLANS FOR LIVE FASCINE LOCATION.

LIVE STAKE INSTALLATION METHOD

1. STAKES MUST BE FRESH AND KEPT MOIST FROM TIME OF INITIAL COLLECTION UNTIL INSTALLATION.
2. STAKES MUST BE INSTALLED BEFORE LEAF OUT WITH THE BUDS POINTING UP.
3. SAW-CUTS ONLY ARE ACCEPTABLE.
4. STAKES MUST HAVE SIDE BRANCHES CLEANLY REMOVED AND THE BARK INTACT.
5. LAY DOWN EROSION CONTROL BLANKET AND STAKE TO MANUFACTURER'S SPECIFICATIONS.
6. STAKES WILL BE TAMPED INTO THE GROUND AT RIGHT ANGLES TO SLOPE USING A DEAD BLOW HAMMER.
7. STAKES TO BE TAMPED WITH 4/5 OF THEIR LENGTH BELOW GRADE. SPLIT OR 'MUSHROOMED' CUTTINGS ARE NOT ACCEPTABLE.
8. FOOT COMPACT SOIL AROUND EACH CUTTING AFTER INSTALLATION.
9. START INSTALLATION AT NORMAL WATER LEVEL/VEGETATION LINE ALONG THE RIVER AND WORK UP THE BANK.



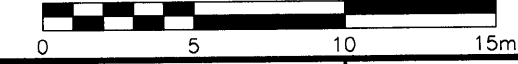
DEAD STOUT STAKE



NOTE: GRASS SEED MIXTURE HAS THE SAME PROPORTIONS OF THE SAME GRASSES AS SOD

TURFSTONE SECTION

LOCATION UNDERGROUND	APPROVED STRUCTURES	B.M. ELEV.
SUPR. U/G STRUCTURES	DATE	
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.		
NO.	REVISIONS	DATE BY



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APEGM
Certificate of Authorization
UMA Engineering Ltd.
No. 256 Expiry: April 30, 2004

Tender No. 522-2003

UMA UMA Engineering Ltd.
• Consulting • Engineering • Construction • Management Services

DESIGNED BY: DKH	CHECKED BY: B. Marton
DRAWN BY: ADL	APPROVED BY: [Signature]
HOR. SCALE: 1:250	RELEASED FOR CONSTRUCTION: [Signature]
VERTICAL:	DATE: 01/10/04

PROFESSIONAL'S SEAL
Jan 8/04
DONALD K. HESTER
member no. 32
CONSULTANT DRAWING NO. 08
D265-096-03

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

STRATHMILLAN/MOORGATE
COMBINED SEWER RELIEF
CONTRACT 4

PLANTING DETAILS

SHEET 8 OF 8
CITY DRAWING NUMBER
REV
LD-2925

WARNING

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT, THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 140/92 FOR DETAILS

PLOT SCALE: 1:0.25
FILE: STROTIPR_R-DWG 2004-01-07 1:53pm ADL