

**DETAIL 'A'**  
TYPICAL SEDIMENT CONTROL WHERE NO GROUND DISTURBANCE IS REQUIRED

**NOTES:**

- (A)** 1200 mm HIGH PAIGE WIRE FARM FENCE SECURED TO STEEL T-BARS AT MIN. 3000 mm O.C.. FENCING MUST BE STRETCHED TO ACHIEVE TENSION.
- (B)** FOR SUBDIVISIONS AND ANY OTHER LONG DURATION PROJECTS (MORE THAN 1 YEAR), FENCING TO INCLUDE 2.44 m HIGH, 150 mm CEDAR POSTS LOCATED AT 21 m O.C. AND AT ALL CHANGES IN DIRECTION WHERE REQUIRED BY APPROVED VEGETATION MANAGEMENT PLAN.
- (C)** EROSION/SEDIMENT CONTROLS SHALL BE AFFIXED DIRECTLY TO TREE PROTECTION FENCING WHERE LOCATIONS COINCIDE. REFER TO EROSION CONTROL PLANS AND DETAILS WHERE APPLICABLE. WHERE NO ADJACENT GRADING/ GROUND DISTURBANCE WORKS ARE REQUIRED ON DEVELOPMENT SIDE, EROSION CONTROL MEASURES SHALL NOT BE KEYED. REFER TO DETAIL 'A'.

**GENERAL:**

1. ATTACHMENT OF FENCE TO TREES WILL NOT BE PERMITTED.
2. IF TREE ROOTS ARE EXPOSED TO AIR, ENSURE ROOTS ARE WATERED UNTIL THEY CAN BE COVERED AGAIN. ANY EXPOSED ROOTS TO BE REMOVED SHALL BE HAND PRUNED USING PROPER ARBORICULTURAL PRACTICES.
3. CONTRACTOR WILL ONLY ENTER / WORK WITHIN THE TREE PROTECTION ZONE (TPZ) WHERE APPROVED BY THE CITY OF WATERLOO.
4. FENCING TO BE INSPECTED ON A REGULAR BASIS AND MAINTAINED BY CONTRACTOR.
5. TREE PROTECTION FENCING SHALL BE INSTALLED PER THE LOCATIONS SHOWN ON THE APPROVED VEGETATION MANAGEMENT PLAN. ONCE INSTALLED, A SITE INSPECTION WITH A REPRESENTATIVE FROM THE CITY'S ENGINEERING SERVICES SHALL BE SCHEDULED FOR APPROVALS PRIOR TO ANY WORK COMMENCING ON SITE.
6. TREE PROTECTION FENCE WILL REMAIN INSTALLED FOR THE DURATION OF ALL CONSTRUCTION WORKS.

**TABLE 1.0:**

**MINIMUM TREE PROTECTION ZONE DETERMINATION**

TRUNK DIAMETER (DBH AT 1.4m)	MINIMUM PROTECTION DISTANCES REQUIRED
<10 cm	1.8 m
11 - 40 cm	2.4 m
41 - 50 cm	3.0 m
51 - 60 cm	3.6 m
61 - 70 cm	4.2 m
71 - 80 cm	4.8 m
81 - 90 cm	5.4 m
91 - 100+ cm	6.0+ m

**NOTE:**  
MINIMUM TREE PROTECTION ZONES (TPZ) SHALL ONLY BE USED WHERE SPACE IS LIMITED AND WHERE APPROVED BY THE CITY OF WATERLOO.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1

MAY 2023

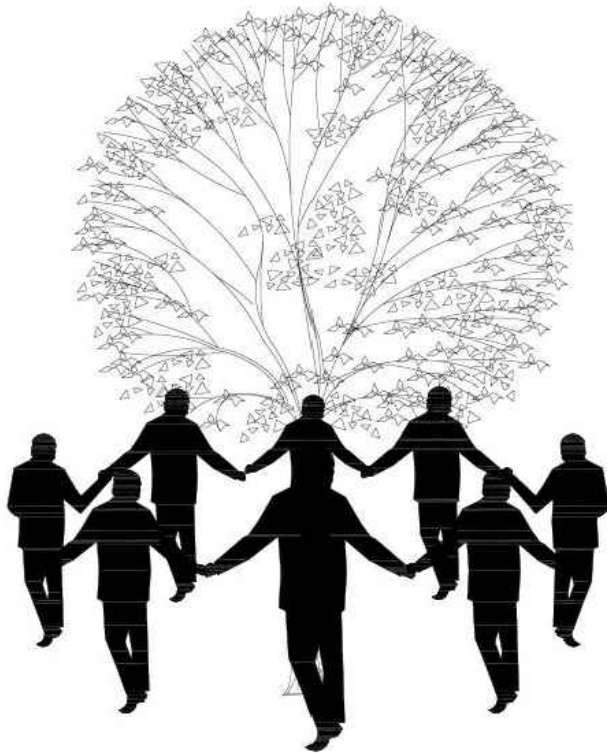
**TREE PROTECTION FENCING**



**CW-701**

600 mm MINIMUM

300 mm MINIMUM



**Tree  
Preservation Plan  
In Effect**

**NO** DUMPING  
STORAGE OF MATERIALS  
TREE REMOVAL  
DISTURBANCE OF ANY KIND  
**BEYOND THIS POINT**

Developers Name

Developers  
Telephone Number

Consultants Name

Consultants  
Telephone Number

City Contact:

NOTES:

1. SIGN TO BE MOUNTED ON GATOR BOARD.
2. SIGN TO BE PLACED A MAXIMUM OF 30 m O.C. ALONG FENCE AND SECURED WITH OUTDOOR PLASTIC LOCKING TIE-WRAPPS.
3. AT LEAST ONE SIGN SHALL BE INSTALLED AT EACH SIDE OF THE TREE PROTECTION ZONE.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

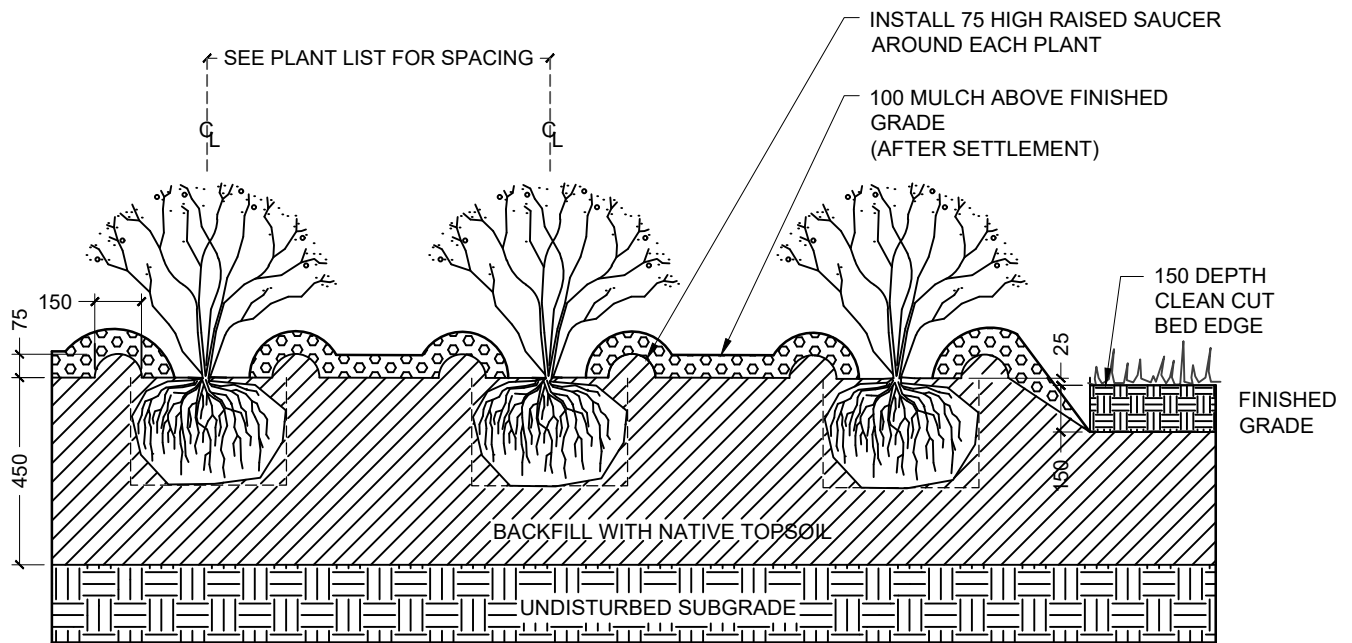
REV 1

MAY 2023

**TREE PROTECTION ZONE SIGNAGE**

THE CITY OF   
**Waterloo**

**CW-702**



**NOTES:**

1. EXCAVATE AND CULTIVATE TO A DEPTH OF 600. IMPROVE STRUCTURE OF EXCAVATED SOIL BY AERATING, PULVERIZING, AND MIXING, REMOVING CLOUDS, LUMPS, AND DEBRIS (SUCH AS STONE, ROOTS, ETC.). BACKFILL USING IMPROVED NATIVE TOPSOIL.
2. SET CROWN OF ROOT BALL 25 ABOVE FINISHED GRADE OF PLANTING BED TO ALLOW FOR SETTLEMENT.
3. AFTER INSTALLATION OF PLANT MATERIAL, MULCH TO A DEPTH OF 100 (AFTER SETTLEMENT).
4. SOAK WITH WATER IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.
5. REMOVE ALL BROKEN, DISEASED, OR WEAK BRANCHES.
6. ALL SHRUB PLANT MATERIAL WILL BE PLANTED IN A COMPACT, MULCHED PLANTING BED.

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**STANDARD DRAWING**

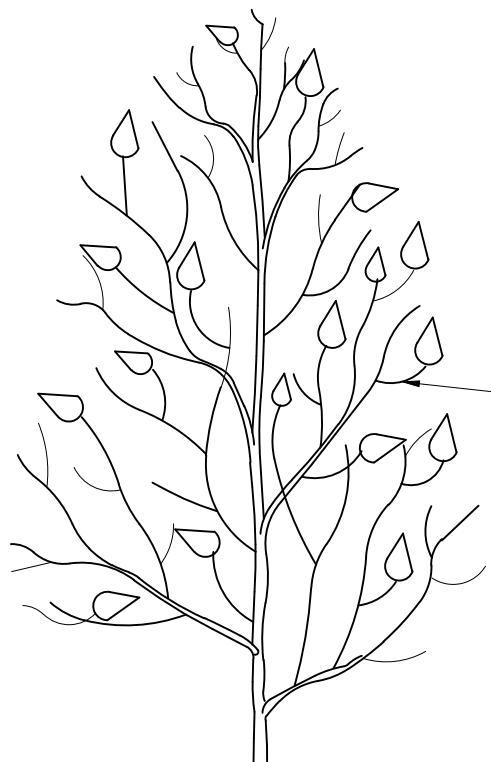
REV 1

MAY 2023

**SHRUB / PERENNIAL PLANTING DETAIL**

THE CITY OF  
**Waterloo**

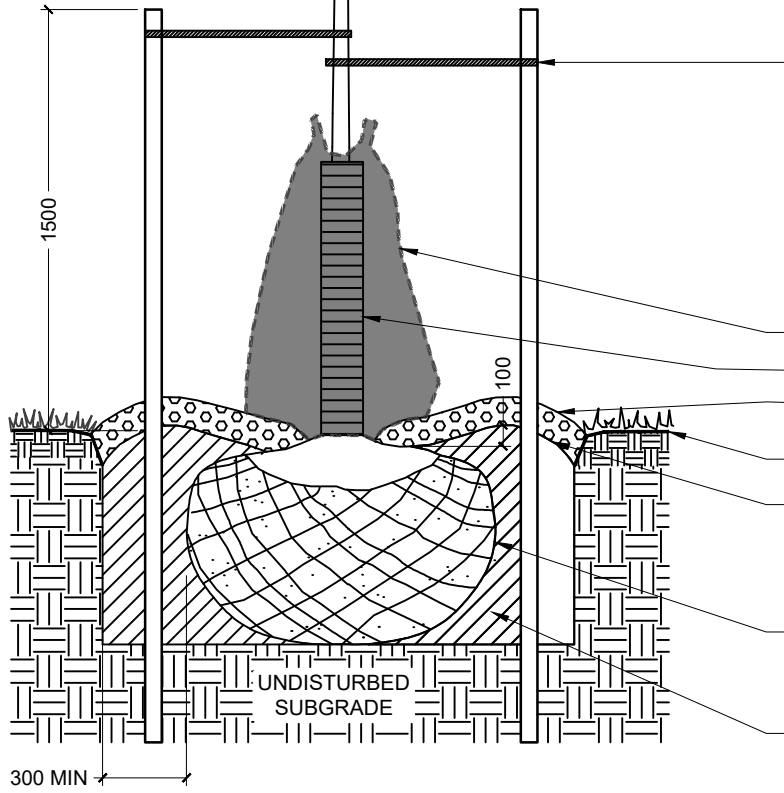
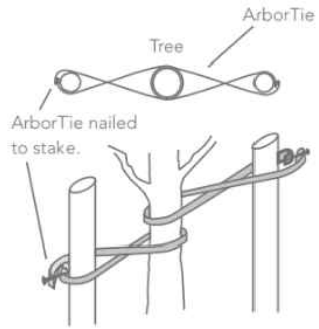
**CW-711**



- NOTES:
1. PLANTING SOIL MIXTURE: BACKFILL WITH NATIVE TOPSOIL.
  2. PLANTING PIT WILL BE THE SAME DEPTH AS THE ROOTBALL AND 300 WIDER AROUND DIAMETER OF ROOTBALL.
  3. ROOT COLLAR OF PLANT WILL BEAR SAME RELATIONSHIP TO FINISHED GRADE, AFTER SETTLEMENT, AS EXHIBITED IN NURSERY/POT.
  4. IN HEAVY CLAY OR POORLY DRAINED SOILS, PLANT MATERIAL WILL BE INSTALLED SO THAT ROOT COLLAR IS 75-100 ABOVE ADJACENT FINISHED GRADE.
  5. APPLY ADEQUATE WATER AND INSTALL MULCH IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.
  6. INSTALL TREE GUARD TO PROTECT TRUNK OF TREE (AS APPROVED BY CITY OF WATERLOO) IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.

ONLY PRUNE BROKEN, DAMAGED, OR STRUCTURALLY DEFECTIVE BRANCHES  
DO NOT TOP PRUNE

**DETAIL A**



- STAKE AND GUY  
TWO (2) WOOD STAKES - 50 x 50 x 2400  
WRAP ARBORTIE LOOSELY AROUND TRUNK OF TREE AND STAKES, ALLOWING MOVEMENT OF TREE. FOLD ENDS OF ARBORTIE BACK AND SECURE TO STAKE WITH 1" GALVANIZED ROOFING NAIL. (SEE DETAIL 'A' ABOVE) STAKES ARE TO BE ORIENTATED IN THE DIRECTION OF THE PREVAILING WINDS.  
DO NOT DRIVE STAKE THROUGH ROOT BALL  
REMOVE STAKE AND GUY AFTER TWO (2) YEARS GROWTH.
- TREE GATOR WATERING BAG OR APPROVED EQUIVALENT.
- TREE GUARD
- 100 DEPTH PINE BARK MULCH (AFTER SETTLEMENT).  
KEEP MULCH 100 AWAY FROM TRUNK.
- FINISHED GRADE
- EARTH SAUCER  
100 HIGH x 200 WIDE  
INSTALL AROUND PERIMETER OF PLANTING PIT  
IMMEDIATELY SOAK SAUCER AFTER INSTALLATION
- REMOVE WIRE BASKET, ALL ROPE AND BURLAP FROM TOP  $\frac{1}{3}$  OF ROOT BALL BEFORE BACKFILLING PLANTING PIT
- BACKFILL WITH NATIVE TOPSOIL

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1      MAY 2023

**PLANTING DETAIL  
DECIDUOUS TREE UP TO 100 mm CALIPER**



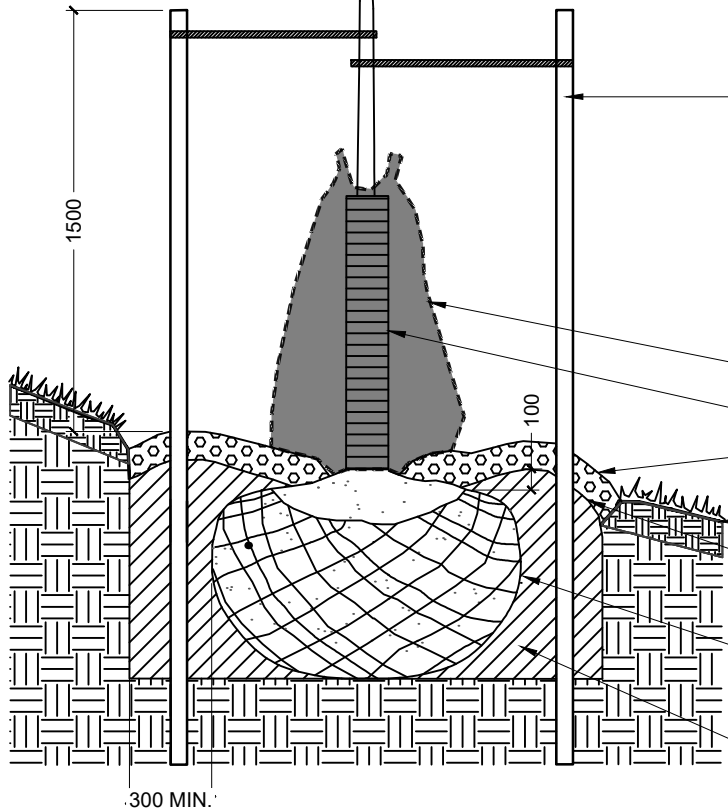
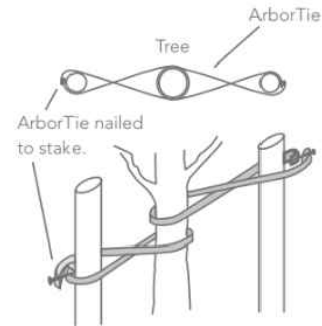
**CW-721**

**NOTES:**

1. PLANTING SOIL MIXTURE: BACKFILL WITH NATIVE TOPSOIL.
2. PLANTING PIT WILL BE THE SAME DEPTH AS THE ROOTBALL AND 300 WIDER AROUND DIAMETER OF ROOTBALL.
3. ROOT COLLAR OF PLANT WILL BEAR SAME RELATIONSHIP TO FINISHED GRADE, AFTER SETTLEMENT, AS EXHIBITED IN NURSERY / POT.
4. IN HEAVY CLAY OR POORLY DRAINED SOILS, PLANT MATERIAL WILL BE INSTALLED SO THAT ROOT COLLAR IS 75-100 ABOVE ADJACENT FINISHED GRADE.
5. APPLY ADEQUATE WATER AND INSTALL MULCH IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.
6. INSTALL TREE GUARD TO PROTECT TRUNK OF TREE (AS APPROVED BY CITY OF WATERLOO) IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.

ONLY PRUNE BROKEN, DAMAGED, OR STRUCTURALLY DEFECTIVE BRANCHES  
DO NOT TOP PRUNE

**DETAIL A**



- STAKE AND GUY  
TWO (2) WOOD STAKES - 50 x 50 x 2100  
WRAP ARBORTIE LOOSELY AROUND TRUNK OF TREE AND STAKES, ALLOWING MOVEMENT OF TREE. FOLD ENDS OF ARBORTIE BACK AND SECURE TO STAKE WITH 1" GALVANIZED ROOFING NAIL. (SEE DETAIL 'A' ABOVE) STAKES ARE TO BE ORIENTATED IN THE DIRECTION OF THE PREVAILING WINDS.  
DO NOT DRIVE STAKE THROUGH ROOT BALL  
REMOVE STAKE AND GUY AFTER TWO (2) YEARS GROWTH.
- TREE GATOR WATERING BAG OR APPROVED EQUIVELANT.
- TREE GUARD
- 100 DEPTH PINE BARK MULCH (AFTER SETTLEMENT).  
KEEP MULCH 100 AWAY FROM TRUNK.
- FINISHED GRADE
- EARTH SAUCER 75 HIGH AROUND BASE OF TREE.  
SOAK SAUCER IMMEDIATELY AFTER INSTALLATION OF TREE.
- CUT AND REMOVE TOP 1/3 OF BURLAP, ROPE, AND WIRE BASKET FROM ROOT BALL BEFORE BACKFILLING PLANTING PIT
- BACKFILL WITH NATIVE TOPSOIL

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1

MAY 2023

**PLANTING DETAIL  
DECIDUOUS TREE ON SLOPE**



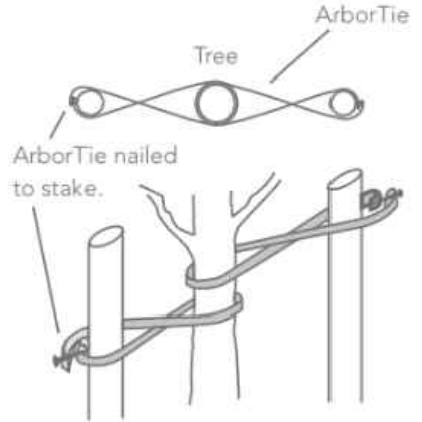
**CW-722**

**NOTES:**

1. PLANTING SOIL MIXTURE: BACKFILL WITH NATIVE TOPSOIL.
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3. ROOT COLLAR OF PLANT WILL BEAR SAME RELATIONSHIP TO FINISHED GRADE, AFTER SETTLEMENT, AS EXHIBITED IN NURSERY / POT.
4. IN HEAVY CLAY OR POORLY DRAINED SOILS, PLANT MATERIAL WILL BE INSTALLED SO THAT ROOT COLLAR IS 75-100 ABOVE ADJACENT FINISHED GRADE.
5. APPLY ADEQUATE WATER AND INSTALL MULCH IMMEDIATELY AFTER INSTALLATION OF PLANT MATERIAL.

DO NOT CUT LEADER

**DETAIL A**



**STAKE AND GUY**  
 THREE (3) WOOD STAKES - 50 x 50 x 2400  
 WRAP ARBORTIE LOOSELY AROUND TRUNK OF TREE AND STAKES, ALLOWING MOVEMENT OF TREE. FOLD ENDS OF ARBORTIE BACK AND SECURE TO STAKE WITH 1" GALVANIZED ROOFING NAIL. (SEE DETAIL 'A' ABOVE)  
 STAKES ARE TO BE SPACED EQUALLY AROUND THE TREE.

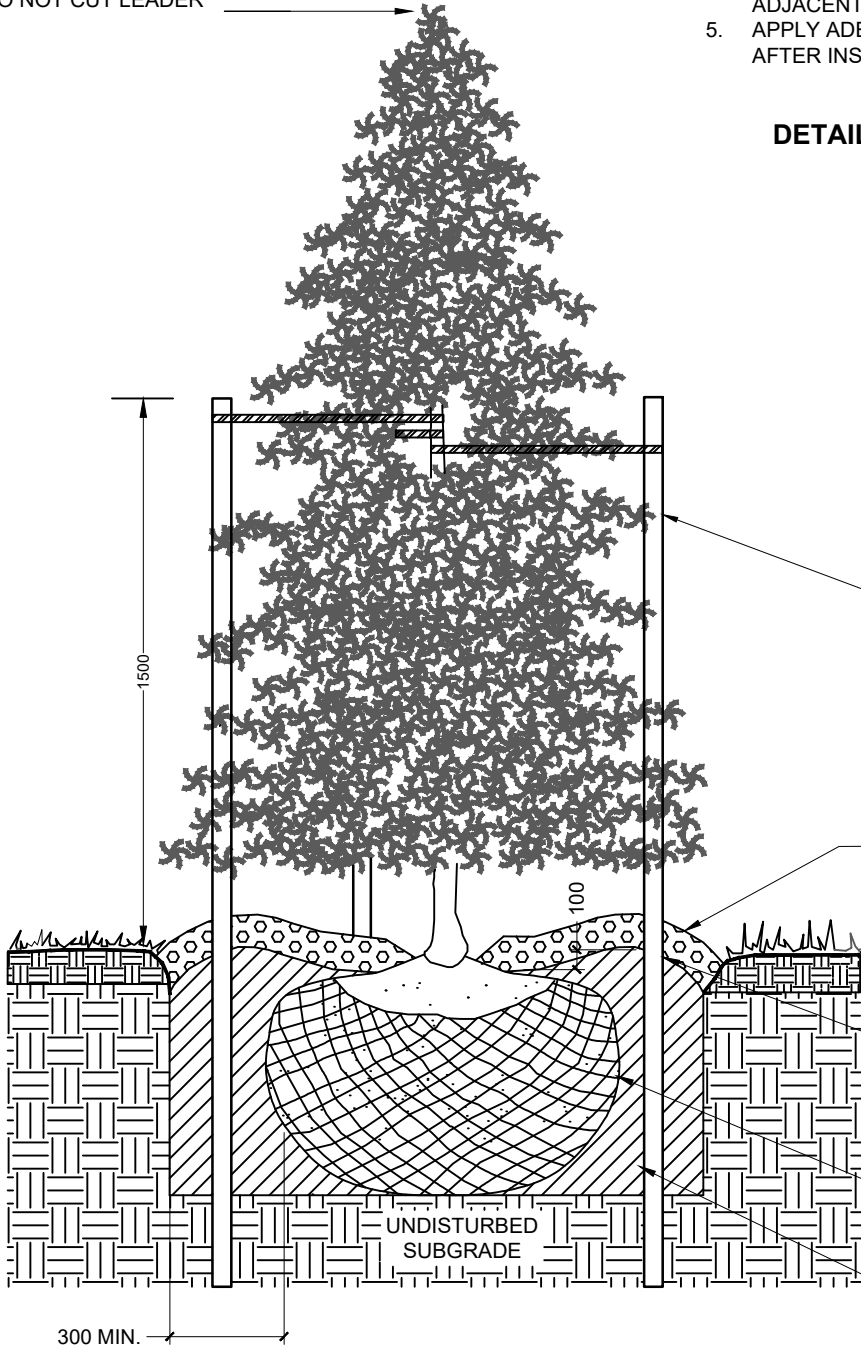
100 DEPTH PINE BARK MULCH (AFTER SETTLEMENT). KEEP MULCH 100 AWAY FROM TRUNK.

FINISHED GRADE

**EARTHEN SAUCER**  
 100 HIGH x 200 WIDE  
 INSTALL AROUND PERIMETER OF PLANTING PIT IMMEDIATELY SOAK SAUCER AFTER INSTALLATION

REMOVE WIRE BASKET, ALL ROPE, AND BURLAP FROM TOP 1/3 OF ROOTBALL BEFORE BACKFILLING PLANTING PIT

BACKFILL WITH NATIVE TOPSOIL



ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1

MAY 2023

**PLANTING DETAIL  
 CONIFEROUS TREE PLANTING**



**CW-725**

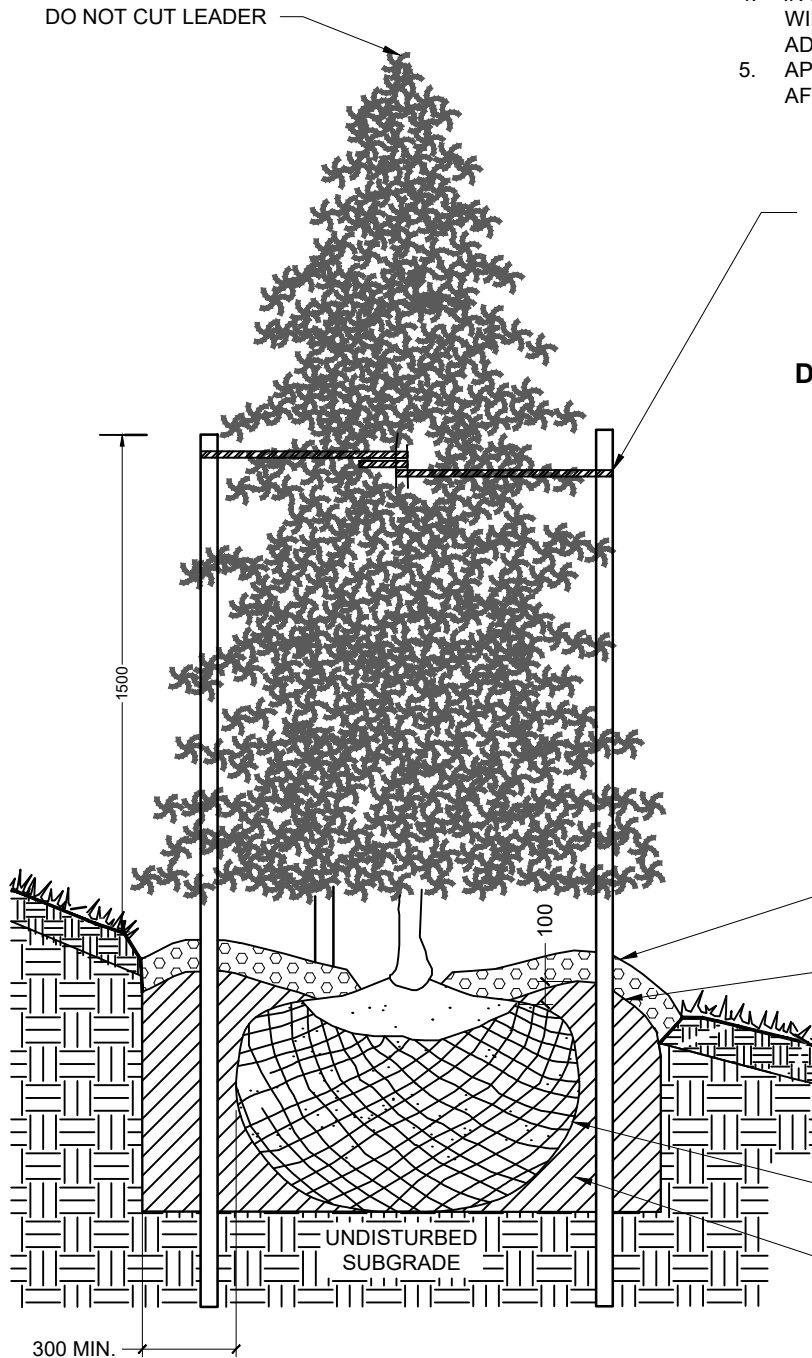
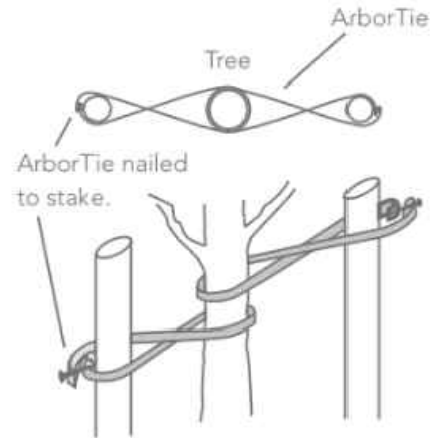
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**STAKE AND GUY**

THREE (3) WOOD STAKES - 50 x 50 x 2400  
 WRAP ARBORTIE LOOSELY AROUND TRUNK OF TREE AND STAKES, ALLOWING MOVEMENT OF TREE. FOLD ENDS OF ARBORTIE BACK AND SECURE TO STAKE WITH 1" GALVANIZED ROOFING NAIL. (SEE DETAIL 'A' BELOW)  
 STAKES ARE TO BE SPACED EQUALLY AROUND THE TREE.

**DETAIL A**



100 DEPTH PINE BARK MULCH (AFTER SETTLEMENT).  
 KEEP MULCH 100 AWAY FROM TRUNK.

EARTHEN SAUCER  
 100 HIGH x 200 WIDE  
 INSTALL AROUND PERIMETER OF PLANTING PIT  
 IMMEDIATELY SOAK SAUCER AFTER INSTALLATION

FINISHED GRADE

REMOVE WIRE BASKET, ALL ROPE, AND BURLAP  
 FROM TOP  $\frac{1}{3}$  OF ROOTBALL BEFORE BACKFILLING

BACKFILL WITH NATIVE TOPSOIL

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

**STANDARD DRAWING**

REV 1

MAY 2023

**PLANTING DETAIL  
 CONIFEROUS TREE ON SLOPE**

THE CITY OF  
**Waterloo**

**CW-726**