

A series of approximately 15 thin, wavy, vertical lines in shades of blue and green, running along the left edge of the page.

Appendix F: Conceptual Design Drawings

NOTE: PR. CHANNEL BED AND BANK TREATMENT EXTENTS TO BE REFINED DURING DETAILED DESIGN

Flow direction indicated by blue arrow.

Infrastructure labels include: SSC4-1, SSP4-2, BB3, BB4, RT4-1, SSP4-5, AW4-1, BE4-1, C4-1, GF4-1, VWC4-2, VWC4-3, BT4-1, SSP4-7, SSC4-2, CC4-1, OF4-3, STM, OF4-2, OF4-1, VWC4-1, SSC3-1, VWC3-1, BB3, SSP3-1, SSP2-5, BT2-5, BT2-4, SSC2-2, SSP2-3, BB2, BT2-1, SSC2-1, BT2-3, BT2-2, SSP2-2, RC1-1, BT1-1, VRW1-1, GF1-1, C1-1, and BB1.

Infrastructure types: SAN 300 mm AC, SAN 450 mm PE, SAN 300 mm PE, and STM.

Water bodies: Burke Brook and West Don River.

Scale: SITE OVERVIEW 1:1500

High Priority Area - Reaches BB3/BB4 (Reach Based Rehabilitation)

AC. - DENOTES ASBESTOS CEMENT PIPE
DET. - DENOTES DETAIL (SHEET DET-1)
DIA. - DENOTES DIAMETER
EL. - DENOTES ELEVATION
EX. - DENOTES EXISTING
MH. - DENOTES MAINTENANCE HOLE
PE. - DENOTES POLYETHYLENE PIPE
PR. - DENOTES PROPOSED

GEO | **M O R P H I X**
Geomorphology
Earth Science
Observations

**CONCEPTUAL PLANS
NOT FOR CONSTRUCTION**

No.	DATE	REVISIONS	INITIAL	SIGNED
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Toronto

ENGINEERING AND CONSTRUCTION SERVICES

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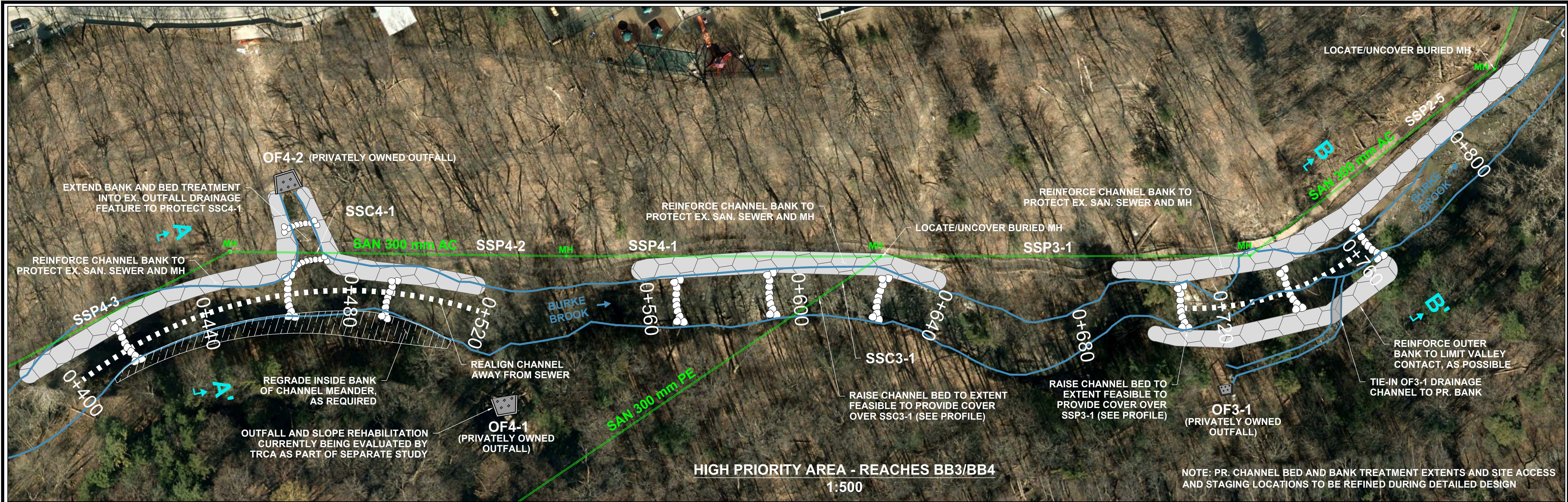
EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE
PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY

CITY OF TORONTO

BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION

OVERVIEW OF STUDY AREA

DESIGN:	PV	DRAFTING:	BM	CHECK:	PV	CONTRACT No. 000000
SCALE:	AS SHOWN			DRAWING GEO-1		
DATE:	2022-11-14			NUMBER: 1 of 5		



LEGEND

PLAN

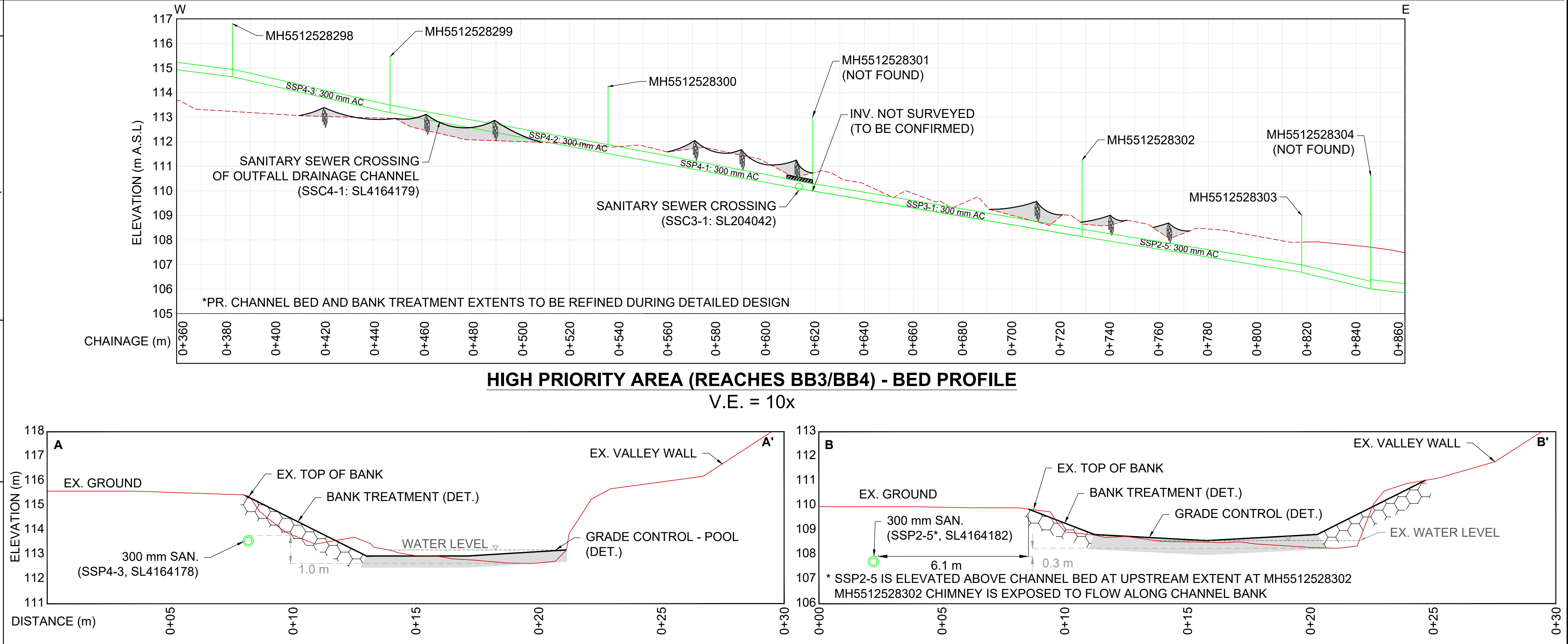
- EX. WATERCOURSE AND CHAINAGE
- PR. BANK BIOENGINEERING (DET.)
- PR. WEIR/GRADE CONTROL (DET.)
- PR. CHANNEL THALWEG REALIGNMENT
- SSP5-1 STUDY I.D. FOR SANITARY SEWER PARALLELS TO CHANNEL
- SSC5-1 STUDY I.D. SANITARY SEWER CROSSINGS OF CHANNEL
- OF5-1 STUDY I.D. FOR STORMWATER OUTFALL
- SAN 300 mm PE EX. SANITARY SEWER
- MH EX. MAINTENANCE HOLE

PROFILE

- PR. WEIR/GRADE CONTROL (DET.)
- PR. HYDRAULICALLY-SIZED COVER MATERIALS (DET.)
- CHANNEL BED EL. (SURVEYED IN FALL, 2020)
- SSP5-1: 300 mm AC APPROX. EL. OF ADJACENT SANITARY SEWER LINE WITH STUDY ID (SURVEYED IN FALL, 2020)
- PR. CONCRETE ENCASEMENT OVER SEWER

LIST OF ABBREVIATIONS

- AC. - DENOTES ASBESTOS CEMENT PIPE
- DET. - DENOTES DETAIL (SHEET DET-1)
- DIA. - DENOTES DIAMETER
- EL. - DENOTES ELEVATION
- EX. - DENOTES EXISTING
- MH. - DENOTES MAINTENANCE HOLE
- PE. - DENOTES POLYETHYLENE PIPE
- PR. - DENOTES PROPOSED



TORONTO WATER

GEO MORPHIX

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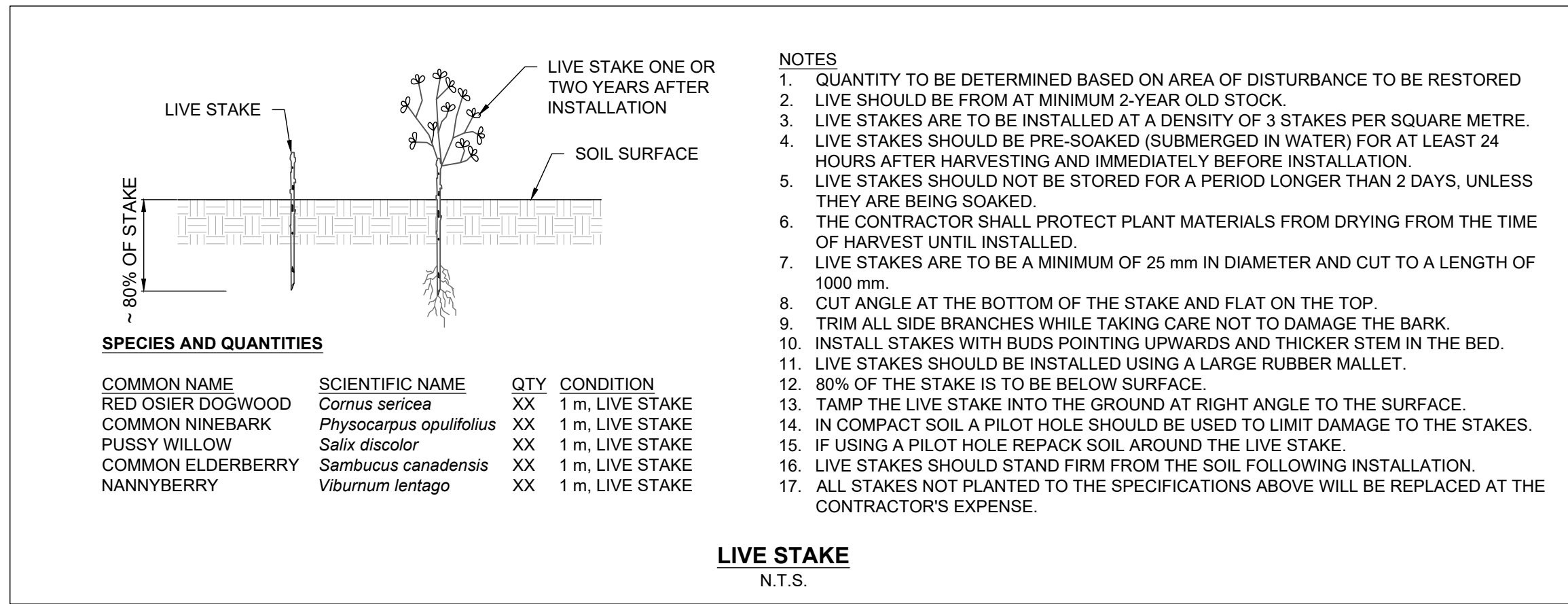
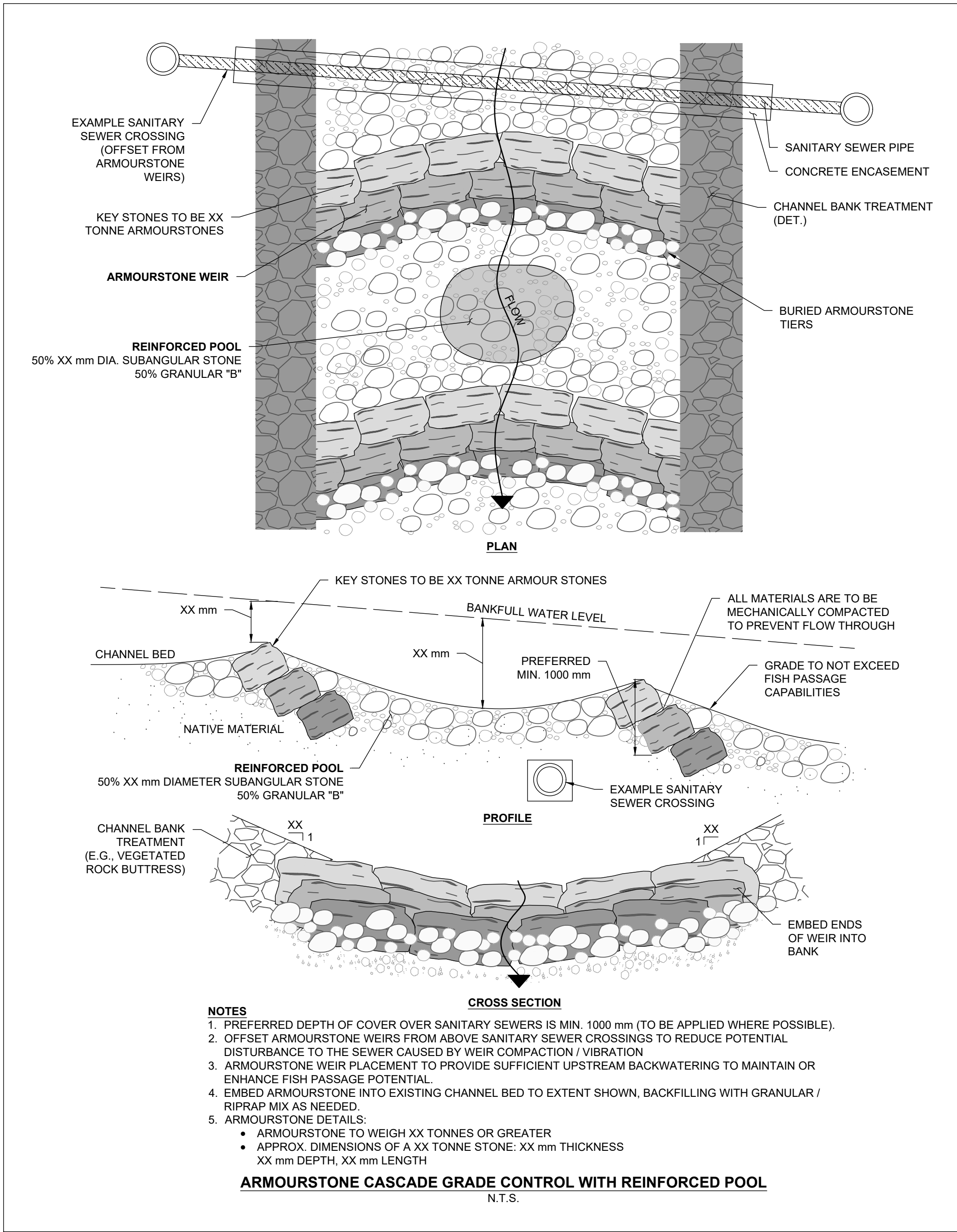
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CITY OF TORONTO
BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION
PLAN AND PROFILE - HIGH PRIORITY AREA

DESIGN: PV	DRAFTING: BM	CHECK: PV	CONTRACT No. 000000
SCALE: AS SHOWN	DRAWING GEO-2		NUMBER: 2 of 5
DATE: 2022-11-14			

EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY



WOODLAND SEED MIX

COMMON NAME	SPECIES
FOXGLOVE BEAR TONGUE	<i>Penstemon digitalis</i>
BEBB'S SEDGE	<i>Carex bebbii</i>
NODDING/FRINGED SEDGE	<i>Carex crinata</i>
FOWL BLUEGRASS	<i>Poa palustris</i>
SHOWY TICK TREFOIL	<i>Desmodium canadensis</i>
FOWL MANNA GRASS	<i>Glyceria striata</i>
SPOTTED JOE PYE WEEED	<i>Eupatorium maculatum</i>
CANADA ANEMONE	<i>Anemone canadensis</i>
WHITE AVENS	<i>Geum canadense</i>

NOTES

- SEED MIX % AS PER PRE-MIXED OSC SEED PACKET, OR SIMILAR, AS APPROVED BY THE DESIGNER. SUITABLE EXAMPLE MIX:
(<https://www.oscseeds.com/product/woodland-native-mix-problem-solver-8275/>)
- APPLY SEED MIX AT A RATE OF 2.5 GRAMS PER METRE SQUARE.
- SEEDING SHALL OVERLAP ADJACENT GROUND COVER BY 300 mm.
- WATER SOIL AFTER SEED APPLICATION.

RIPARIAN SEED MIX

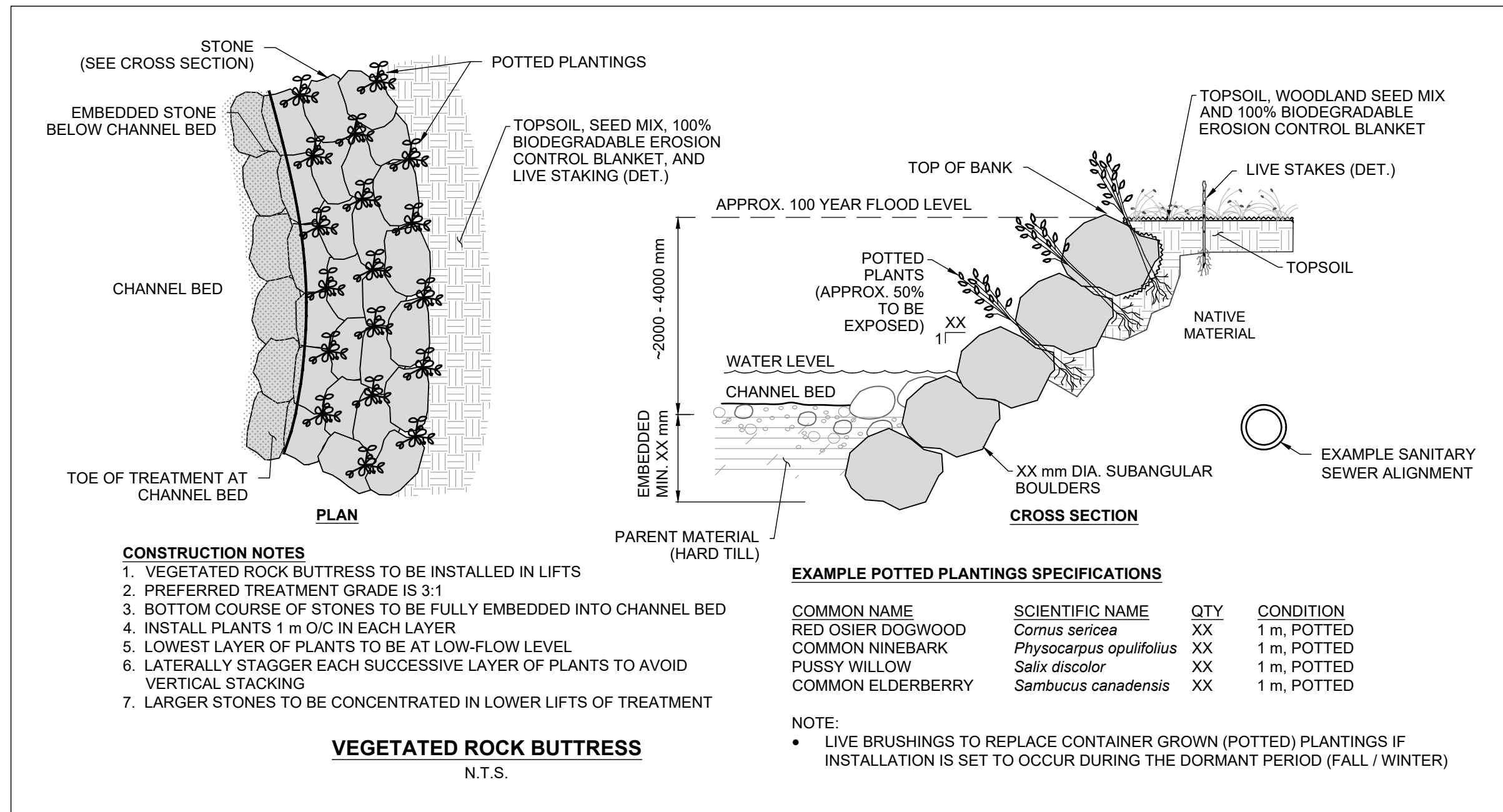
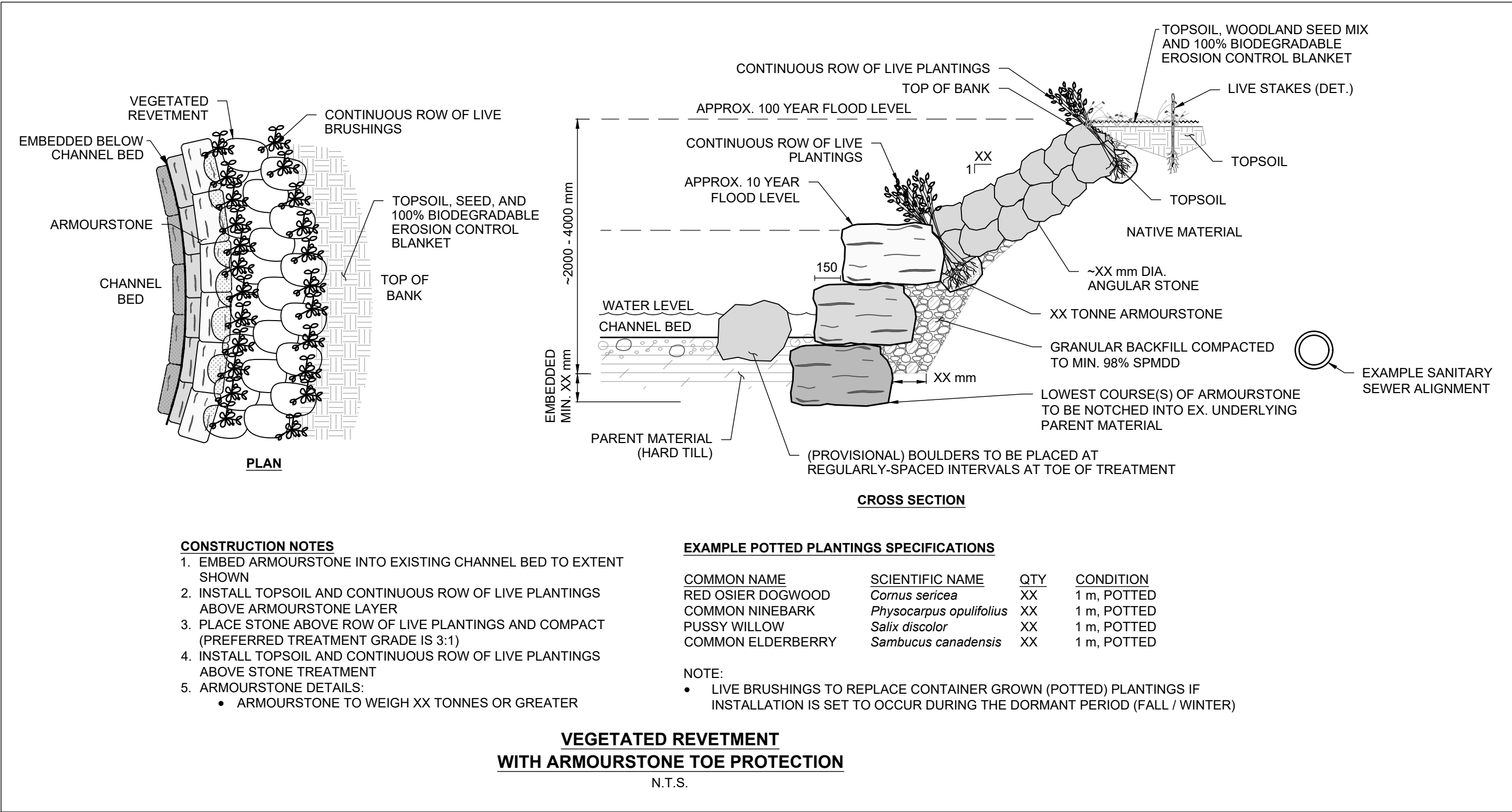
COMMON NAME	SPECIES	% OF MIX
FOWL MANNA GRASS	<i>Glyceria striata</i>	2
FOWL BLUEGRASS	<i>Poa palustris</i>	30
FOX SEDGE	<i>Carex vulpinoidea</i>	30
PATH RUSH	<i>Juncus tenuis</i>	8
VIRGINIA WILD RYE	<i>Elymus virginicus</i>	30

NOTES

- APPLY SEED MIX AT A RATE OF 25 kg PER HECTARE.
- SEEDING SHALL OVERLAP ADJACENT GROUND COVER BY 300 mm.
- APPLY COMMON OAT (AVENA SATIVA) NURSE CROP AT A RATE OF 22 kg PER HECTARE.
- WATER SOIL AFTER SEED APPLICATION.

LIST OF ABBREVIATIONS

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Toronto WATER

GEO MORPHIX

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BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION

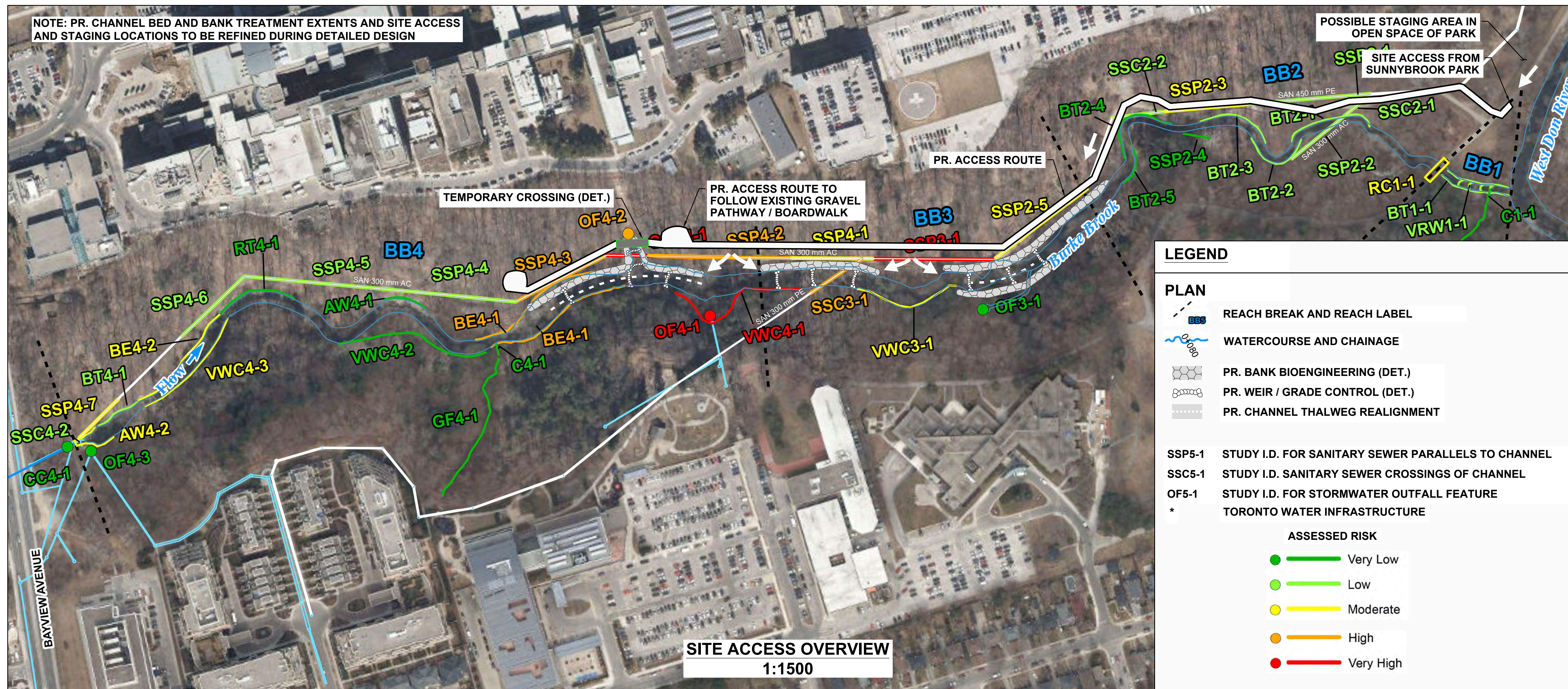
PROTECTION / REHABILITATION DETAILS




DESIGN: PV DRAFTING: BM CHECK: PV CONTRACT No. 000000

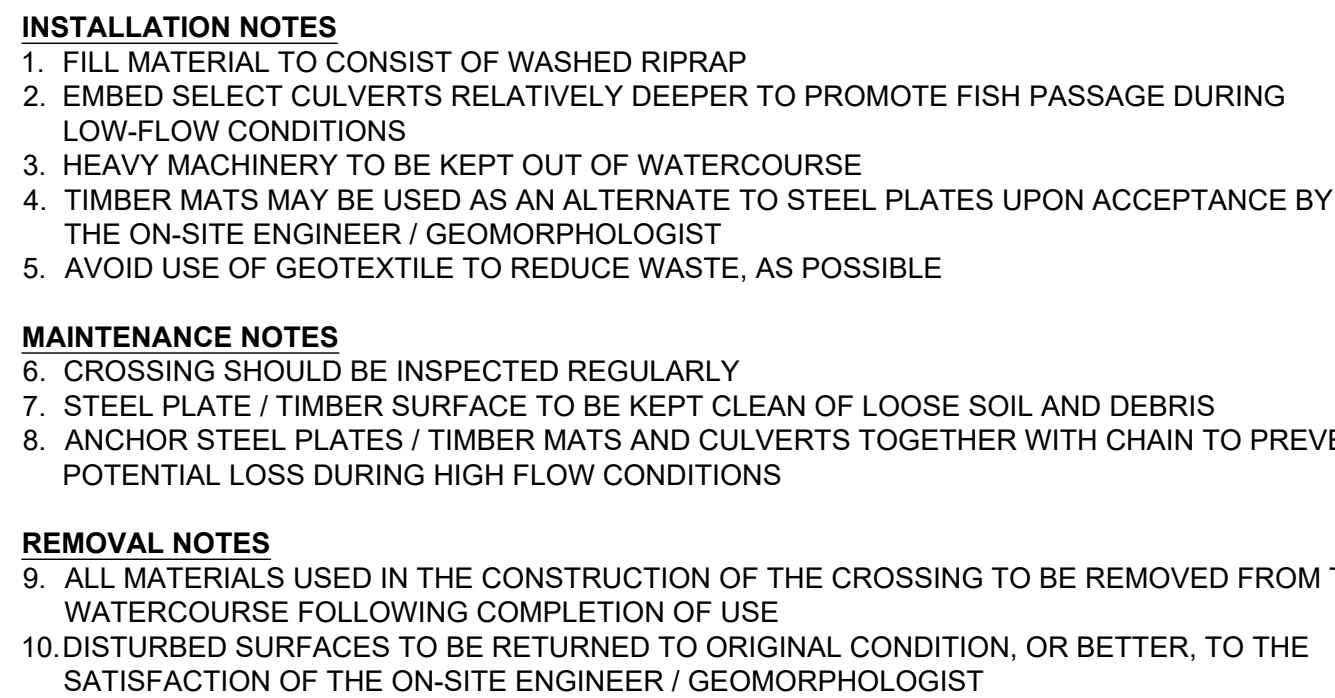
SCALE: AS SHOWN DRAWING DET-1

DATE: 2022-11-14 NUMBER: 3 of 5

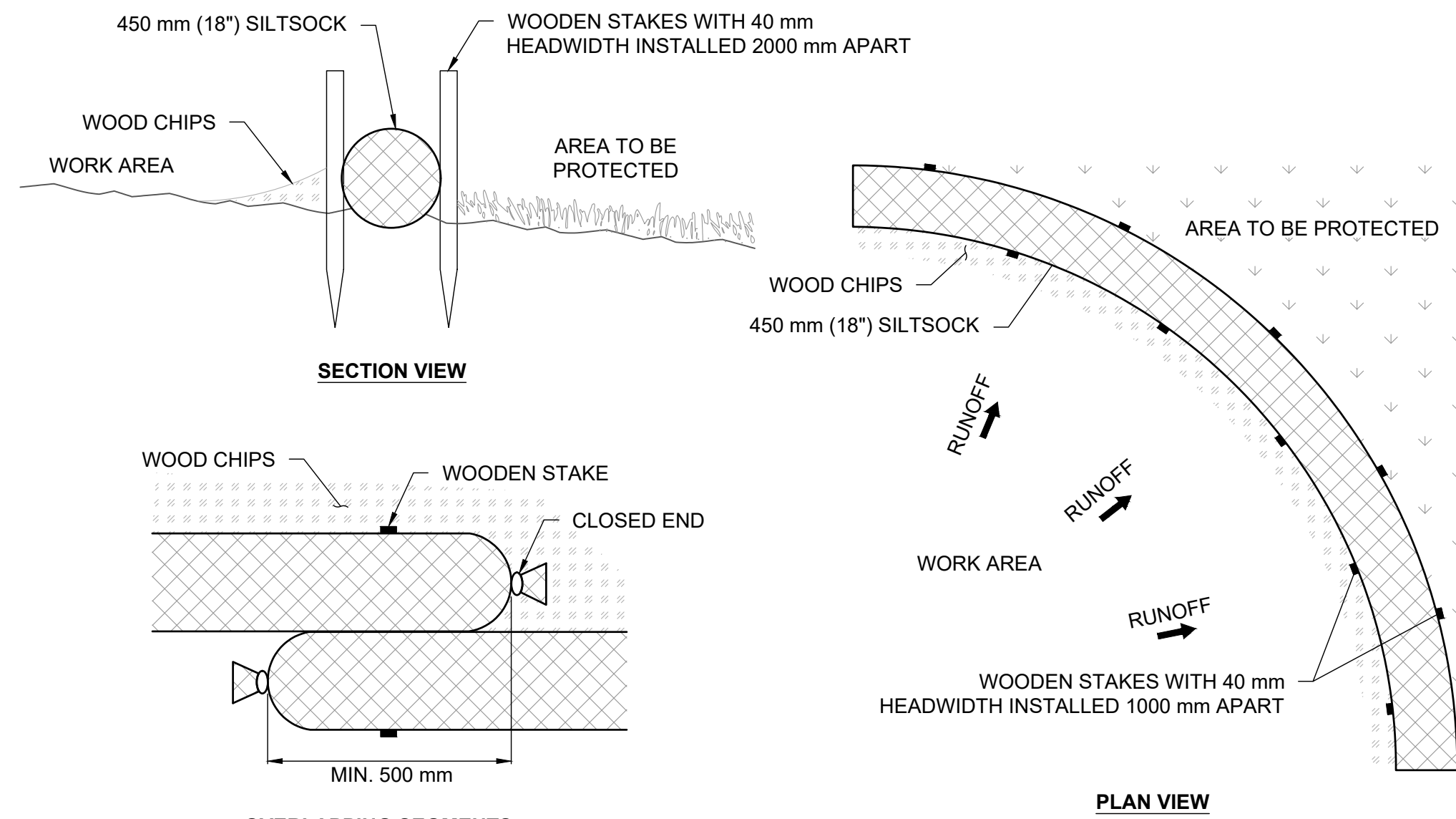
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	<h1>CONCEPTUAL PLANS NOT FOR CONSTRUCTION</h1>								ENGINEERING AND CONSTRUCTION SERVICES				CITY OF TORONTO BURKE BROOK INFRASTRUCTURE PROTECTION AND CHANNEL REHABILITATION SITE ACCESS AND PHASING, EROSION, AND SEDIMENT CONTROL NOTES			
					ELEANOR MCATEER, P.ENG. DIRECTOR, WATER INFRASTRUCTURE MANAGEMENT				JUDY M.S. TSE, P.ENG. DIRECTOR, DESIGN & CONSTRUCTION LINEAR UNDERGROUND INFRASTRUCTURE				DESIGN: PV DRAFTING: BM CHECK: PV CONTRACT No. 000000			
					EXISTING AND PROPOSED ELEVATIONS AND DETAILS SET OUT WITHIN THESE DRAWINGS ARE PRELIMINARY AND ARE PROVIDED FOR GENERAL PLANNING PURPOSES ONLY				SCALE: AS SHOWN DRAWING PESC-1							
No. DATE REVISIONS INITIAL SIGNED				DATE: 2022-11-14 NUMBER: 4 of 5												

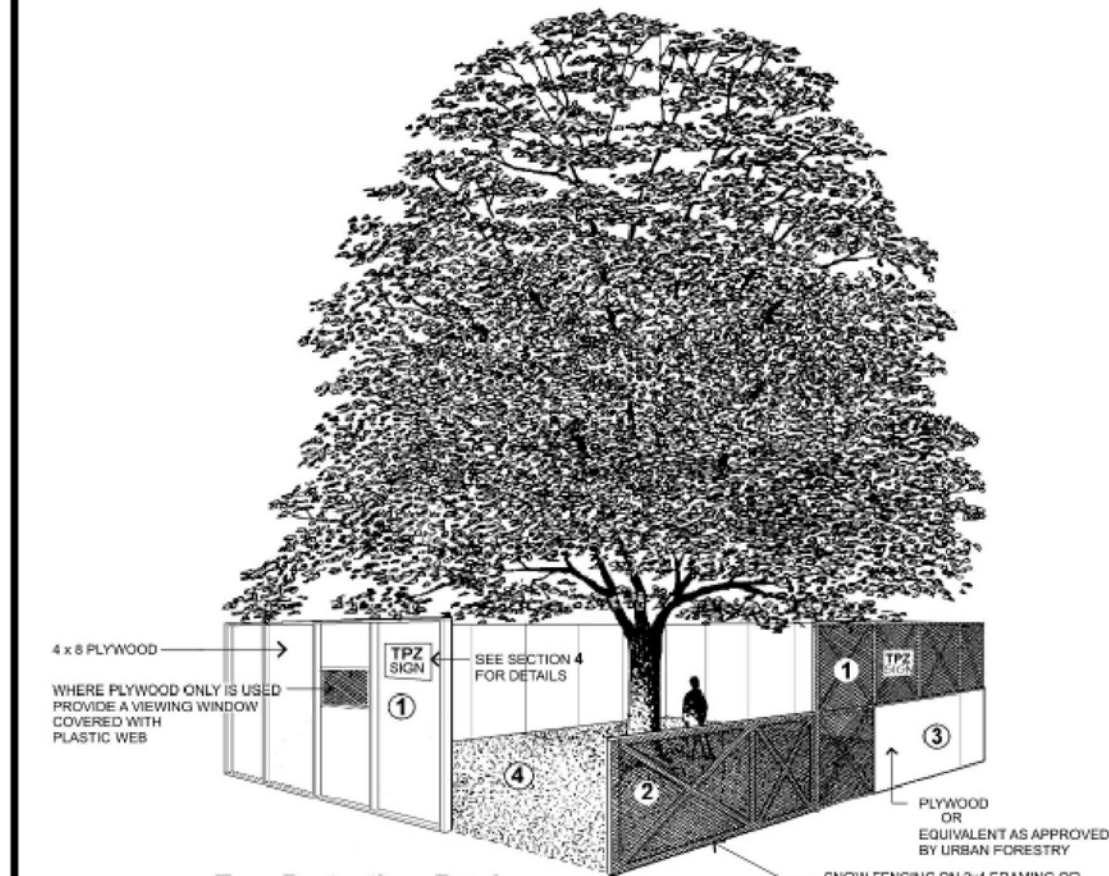


The diagram illustrates the setup for a trench box installation. A curved line on the left represents the 'PUMP' and 'HOSE' system. A dashed line indicates the 'CHANNEL BED'. A 'METRE BAG FILLED WITH PEA-GRAVEL' is shown, with an 'ANCHOR PEA-GRAVEL BAG' attached to it. An 'IMPERMEABLE BARRIER' is also shown, with a 'CHANNEL BED' label at the bottom right.



1. PERIMETER CONTROL WILL BE PLACED AT LOCATIONS INDICATED ON PLANS AND IN A MANNER AS DIRECTED BY THE ENGINEER OR MANUFACTURER.
2. PERIMETER CONTROL SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN CHALLENGING CONDITIONS (E.G., 2:1 SLOPES), A SECOND PERIMETER CONTROL SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE, OR STAKING MAY BE INCREASED.
3. EFFECTIVE SOCK HEIGHT IN THE FIELD SHOULD BE 18" DIAMETER SOCK (APPROXIMATELY 12" HIGH).
4. STAKES SHOULD BE INSTALLED ALTERNATELY AROUND THE PERIMETER CONTROL AT 1 m INTERVALS, USING 1 m WOODEN STAKES WITH 40 mm HEADWIDTH.
5. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 300 mm AND 200 mm FOR CLAY SOILS.
6. STRAIGHTEN OR POSITION THE SOCK AS NEEDED ON THE GROUND, ENSURING THERE IS GOOD GROUND CONTACT AND NO VOID SPACES UNDER THE SOCK.
7. DO NOT DRAG SOCK ACROSS ROUGH SURFACES TO PREVENT TEARING.
8. LOOSE WOOD CHIP MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE PERIMETER CONTROL, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.
9. IF THE PERIMETER CONTROL IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE ENGINEER WILL SPECIFY SEED REQUIREMENTS.

1. THE CONTRACTOR SHALL REMOVE SEDIMENT AT THE BASE OF THE UPSLOPE SIDE OF THE PERIMETER WHEN ACCUMULATION HAS REACHED HALF OF THE EFFECTIVE HEIGHT OF THE SOCK, OR AS DIRECTED BY THE ENGINEER. ALTERNATIVELY, A NEW PERIMETER CONTROL SOCK CAN BE PLACED ON TOP OF AND SLIGHTLY BEHIND THE ORIGINAL ONE CREATING MORE SEDIMENT STORAGE CAPACITY WITHOUT SOIL DISTURBANCE.
2. PERIMETER CONTROL SHALL BE MAINTAINED UNTIL DISTURBED ARE ABOVE THE DEVICE HAS BEEN PERMANENTLY STABILIZED AND CONSTRUCTION ACTIVITY HAS CEASED.
3. THE FILTERMEDIA (WOOD CHIP) WILL BE DISPERSED ON SITE ONCE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED. CONSTRUCTION ACTIVITY HAS CEASED, OR AS DETERMINED BY THE ENGINEER.



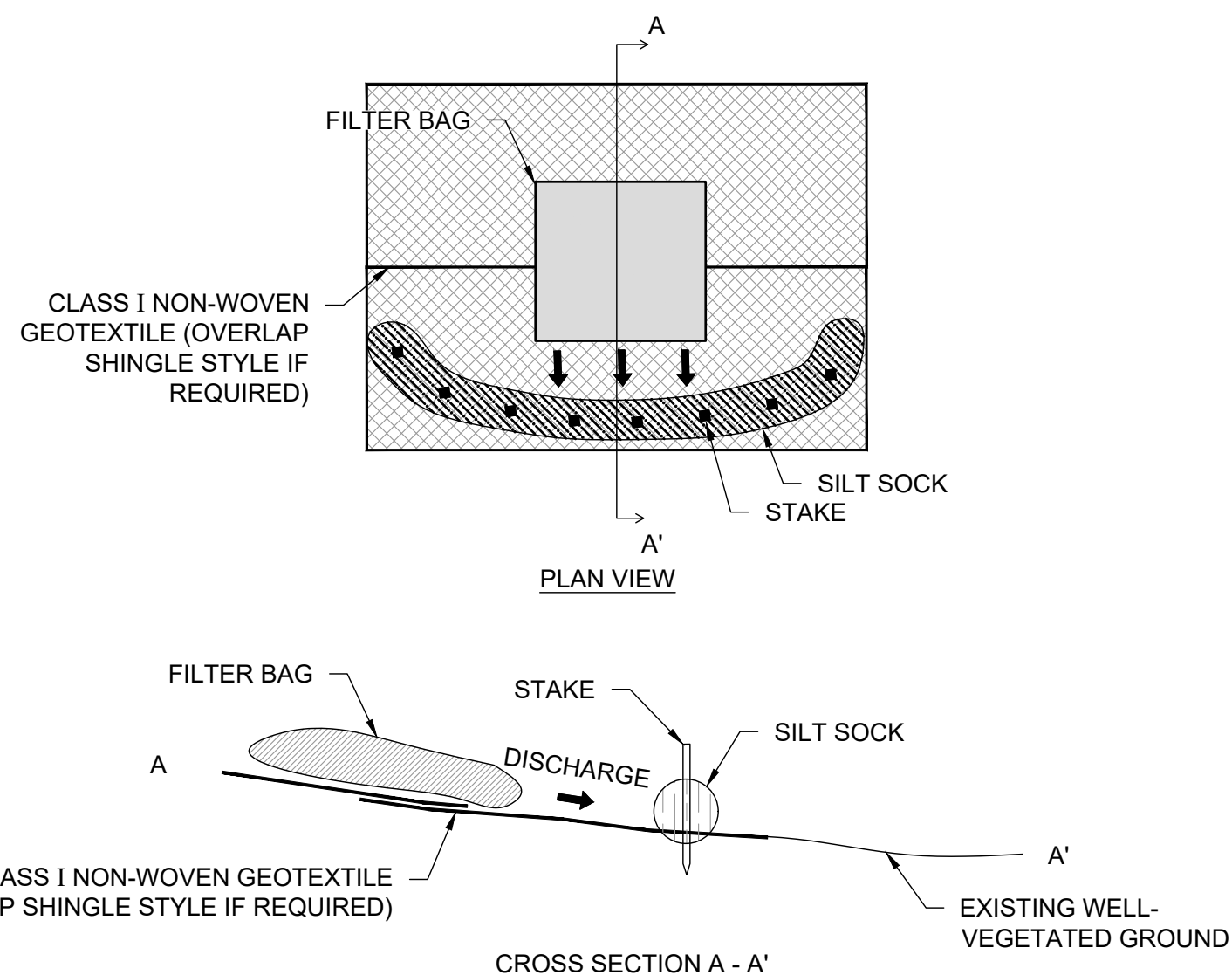
- ① Tree protection barriers must be constructed with a solid wood frame clad with plywood or approved equivalent. Height of hoarding may be less than 8 ft. to accommodate any branches that may be lower.
- ② Tree protection barriers for trees situated on the City road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of orange plastic web snow fencing on a wood frame made of 2 x 4s.
- ③ Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
- ④ No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

Note:
Sediment control fencing shall be installed in locations indicated in an Urban Forestry approved Tree Protection Plan. The sediment control fencing must be installed to Ontario Provincial Standards (OPSD-219.130) heavy duty silt fence barrier and to the satisfaction of Urban Forestry. See Detail TP-2

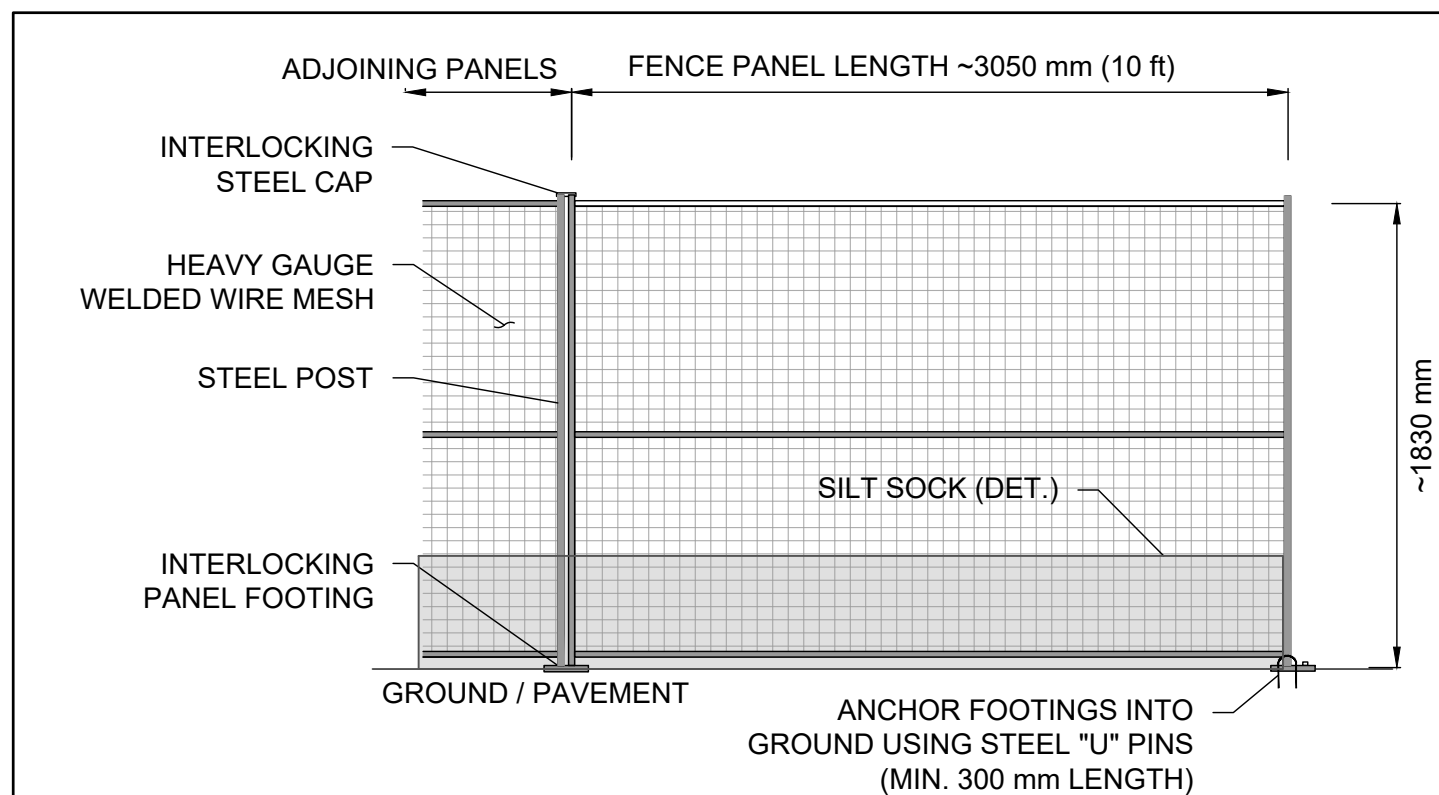


Toronto
Urban Forestry

Parks, Forestry and Recreation



1. SELECT LOCATION OF FILTRATION SYSTEM TO ENSURE PLACEMENT ON WELL-VEGETATED SURFACE AT LEAST 30 m FROM CHANNEL.
2. PLACE NON-WOVEN GEOTEXTILE ON WELL-VEGETATED SURFACE. OVERLAP NON-WOVEN GEOTEXTILE SHINGLE STYLE, IF REQUIRED.
3. SECURE SILT SOCK WITH STAKES AT 0.5 m O/C.
4. ENSURE CONTINUOUS AND FIRM CONTACT BETWEEN SILT SOCK AND NON-WOVEN GEOTEXTILE/GROUND.
5. REPLACE FILTER BAG AS REQUIRED TO ENSURE PROPER FUNCTION.



1. FENCING SHALL FOLLOW A STANDARD STEEL-BASED FAST FENCE DESIGN WITH 6 ft by 10 ft INTERLOCKING PANELS (OR EQUIVALENT)
2. THE FAST FENCE FOOTINGS ARE TO BE ANCHORED INTO THE EXISTING GROUND USING STEEL "U" PINS OR EQUIVALENT, WHERE REQUIRED
3. PIN ANCHORS TO MEASURE 300 mm IN LENGTH, AT MINIMUM
4. ADJOINING PANELS TO BE CONNECTED WITH INTERLOCKING STEEL CAPS
5. SILT SLOTT TO BE INSTALLED AT BASE OF FAST FENCE ON WORK AREA SIDE (OPSD 219.110), AS REQUIRED

