

PLANT LIST - TREES, SHRUBS AND VINES. POTTED AND WHIP MATERIAL.

Est Total Qty	Botanic/Common Name	Size	Shrub Bed								Planting Notes:	
			1A	1B	2A	2B	3A	3B	4A			
12	<i>Acer negundo</i> /Manitoba maple	Whip - 750mm - 1000mm ht. min., 1 litre pot min.			12						Randomly located throughout bed	
86	<i>Amelanchier alnifolia</i> /Saskatoon	Potted - 5 gal. 900Ht. min., 5 basal branches						64	22		3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
67	<i>Amelanchier alnifolia</i> /Saskatoon	Whip - 300mm to 450 ht. min., 1 litre pot min.						49	18		Randomly located throughout bed	
86	<i>Amorpha fruticosa</i> /False indigo bush	Potted - 2 gal. 450Ht. min., 5 basal branches						64	22		Randomly located throughout bed	
67	<i>Amorpha fruticosa</i> /False indigo bush	Whip - 300mm to 450 ht. min., 1 litre pot min.						49	18		Randomly located throughout bed	
11	<i>Celastrus scandens</i> /Bittersweet	Pot - 1 gal, 2 year plant							5	6	Randomly located throughout bed	
35	<i>Cornus stolonifera</i> /Red osier dogwood	Potted - 5 gal. 900Ht. min., 5 basal branches	1	3	21	10					3 to 7 plants per grouping at 400 to 1000mm o.c. - mix sizes	
45	<i>Cornus stolonifera</i> /Red osier dogwood	Potted - 2 gal. 450Ht. min., 5 basal branches	2	5	26	12					3 to 7 plants per grouping at 400 to 1000mm o.c. - mix sizes	
68	<i>Cornus stolonifera</i> /Red osier dogwood	Whip - 300mm to 450 ht. min., 1 litre pot min.	1	6	41	20					3 to 7 plants per grouping at 400 to 1000mm o.c. - mix sizes	
94	<i>Corylus cornuta</i> /Beaked hazelnut	Whip - 300mm to 450 ht. min., 1 litre pot min.							72	22	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
94	<i>Crataegus melanocarpa</i> /Hawthorn	Whip - 300mm to 450 ht. min., 1 litre pot min.							72	22	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
94	<i>Eleagnus commutata</i> /Wolf willow	Whip - 300mm to 450 ht. min., 1 litre pot min.							72	22	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
15	<i>Fraxinus nigra</i> /Black ash	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								15	Randomly located throughout bed	
12	<i>Fraxinus pennsylvanica</i> /Green ash	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								12	Randomly located throughout bed	
12	<i>Parthenocissus quinquefolia</i> /Virginia creeper	Pot - 1 gal, 2 year plant								6	6	Randomly located throughout bed
11	<i>Populus balsamifera</i> /Balsam Poplar	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								11	Randomly located throughout bed	
1	<i>Populus deltoides</i> /Cottonwood	Whip - 750mm - 1000mm ht. min., 1 litre pot min.	1								Randomly located throughout bed	
50	<i>Populus tremuloides</i> /Trembling Aspen	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								50	Randomly located throughout bed	
88	<i>Prunus pensylvanica</i> /Pincherry	Whip - 750mm - 1000mm ht. min., 1 litre pot min.					55	33			Randomly located throughout bed	
88	<i>Prunus virginiana</i> /Chokecherry	Whip - 750mm - 1000mm ht. min., 1 litre pot min.					57	33			3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
21	<i>Quercus macrocarpa</i> /Bur oak	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								21	Randomly located throughout bed	
140	<i>Ribes americanum</i> /Wild currant	Whip - 300mm to 450 ht. min., 1 litre pot min.					91	49			3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
59	<i>Ribes oxycanthoides</i> /Northern gooseberry	Potted - 2 gal. 450Ht. min., 5 basal branches								46	13	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
131	<i>Ribes oxycanthoides</i> /Northern gooseberry	Whip - 300mm to 450 ht. min., 1 litre pot min.								75	56	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
84	<i>Rosa acicularis</i> /Prickly rose	Potted - 2 gal. 450Ht. min., 5 basal branches								60	24	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
131	<i>Rosa acicularis</i> /Prickly rose	Whip - 300mm to 450 ht. min., 1 litre pot min.								100	31	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
65	<i>Rubus idaeus</i> /Raspberry	Whip - 300mm to 450 ht. min., 1 litre pot min.								50	15	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
1	<i>Salix amygdaloides</i> /Peach-leaved willow	Whip - 750mm - 1000mm ht. min., 1 litre pot min.	1								Randomly located throughout bed	
8	<i>Salix bebbiana</i> /Beaked willow	Whip - 300mm to 450 ht. min., 1 litre pot min.	2	6							3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
9	<i>Salix discolor</i> /Pussy willow	Whip - 300mm to 450 ht. min., 1 litre pot min.	2	7							3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
415	<i>Salix exigua</i> /Sandbar willow	Whip - 300mm to 450 ht. min., 1 litre pot min.									415	2 lines staggered at 450mm o.c. (Refer to DTL 1, This SHT.)
32	<i>Sherpherdia argentea</i> /Buffaloberry	Potted - 2 gal. 450Ht. min., 5 basal branches						19	13		3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
37	<i>Sherpherdia argentea</i> /Buffaloberry	Whip - 300mm to 450 ht. min., 1 litre pot min.						21	16		3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
95	<i>Symphoricarpos occidentalis</i> /Western Snowberry	Potted - 2 gal. 450Ht. min., 5 basal branches								75	20	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
168	<i>Symphoricarpos occidentalis</i> /Western Snowberry	Whip - 300mm to 450 ht. min., 1 litre pot min.								128	40	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
18	<i>Tilia americana</i> /Basswood	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								18	Randomly located throughout bed	
38	<i>Viburnum lentago</i> /Nannyberry	Potted - 2 gal. 450Ht. min., 5 basal branches						26	12		3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
81	<i>Viburnum lentago</i> /Nannyberry	Whip - 300mm to 450 ht. min., 1 litre pot min.						55	26		3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes	
117	<i>Viburnum rafinesquianum</i> /Downy Arrowwood	Potted - 5 gal. 900Ht. min., 5 basal branches						24	13	65	15	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
169	<i>Viburnum rafinesquianum</i> /Downy Arrowwood	Whip - 300mm to 450 ht. min., 1 litre pot min.						37	22	87	23	3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
30	<i>Viburnum trilobum</i> /Highbush Cranberry	Potted - 5 gal. 900Ht. min., 5 basal branches						16	14			3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
65	<i>Viburnum trilobum</i> /Highbush Cranberry	Whip - 300mm to 450 ht. min., 1 litre pot min.						38	27			3 to 6 plants per grouping at 400 to 750mm o.c. - mix sizes
10	<i>Ulmus americana</i> /American elm	Whip - 750mm - 1000mm ht. min., 1 litre pot min.								10	Randomly located throughout bed	
Total Potted & Whip Plant Material by Type of Bed			10	27	605	300	1210	395	415			
			Total Bed Size		5	45	755	495	1515	610	75	(m ²)
			Bed Finish		W	H	W	H	W	ECB	ECB	
					W = Wood Mulch with Erosion Control Netting		H = Hydro Mulch		ECB = Erosion Control Blanket			

PLANT LIST - GRASSES AND WILDFLOWERS

UPPER BANK (3B, 3C)	MID BANK (2B, 2C)	LOWER BANK (1B, 1C)
GRASSES (1.0 kg / 100 m²)	GRASSES (1.0 kg / 100 m²)	GRASSES (1.0 kg / 100 m²)
5% Western Wheat Grass <i>Agropyron smithii</i>	40% Slender Wheat Grass <i>Agropyron trachycaulum</i>	40% Slender Wheat Grass <i>Agropyron trachycaulum</i>
10% Awned Wheat Grass <i>Agropyron subsecundum</i>	20% Switch Grass <i>Panicum vergatum</i>	20% Switch Grass <i>Panicum vergatum</i>
10% Slender Wheat Grass <i>Agropyron trachycaulum</i>	and shall include 5 to 8%, each of the following:	and shall include 5 to 8%, each of the following:
15% Big Bluestem <i>Andropogon gerardi</i>	Awned Wheat Grass <i>Agropyron subsecundum</i>	Awned Wheat Grass <i>Agropyron subsecundum</i>
10% Canada Wild Rye <i>Elymus canadensis</i>	Rough Hair Grass <i>Agrostis scabra</i>	Rough Hair Grass <i>Agrostis scabra</i>
25% Indian Grass <i>Panicum vergatum</i>	Slough Grass <i>Beckmannia syzigachne</i>	Slough Grass <i>Beckmannia syzigachne</i>
and shall include 15% of the following:	Northern Reed Grass <i>Calamagrostis canadensis</i>	Northern Reed Grass <i>Calamagrostis canadensis</i>
WILD FLOWERS	Whitetop <i>Erigeron annuus</i>	Whitetop <i>Erigeron annuus</i>
Banberry <i>Actaea rubra</i>	Alkali Cord Grass <i>Spartina gracilis</i>	Alkali Cord Grass <i>Spartina gracilis</i>
Hog-peanut <i>Amphicarpa bracteata</i>	Prairie Cord Grass <i>Spartina pectinata</i>	Prairie Cord Grass <i>Spartina pectinata</i>
Canada Anemone <i>Anemone canadensis</i>		
Long Fruited Anemone <i>Anemone cylindrical</i>		
Wild Columbine <i>Aquilegia canadensis</i>		
Wild Sarsaparilla <i>Aralia nudicaulis</i>		
Smooth Aster <i>Aster laevis</i>		
New England Aster <i>Aster novae-angliae</i>		
Western Canada Violet <i>Monarda fistulosa</i>		
Sweet Cicely <i>Osmorhiza chilensis</i>		
Solomon's Seal <i>Polygonatum canaliculatum</i>		
Star Flowered Solomon's Seal <i>Smilacina stellata</i>		
Tail Meadow Rue <i>Thalictrum dasycarpum</i>		
Northern Bog Violet <i>Viola cucullata</i>		
Downy Yellow Violet <i>Viola pubescens</i>		

SOIL AMENDMENTS (REFER TO DTL 2, THIS SHT.)

- 1. IN ALL GRASS AREAS**
15mm OF SAND AND
35mm OF PEAT MOSS
TO BE ROTOTILLED INTO THE TOP
100mm OF EXISTING CLAY
- 2. IN ALL SHRUB AND / OR TREE AREAS**
25mm OF SAND AND
75mm OF PEAT MOSS
TO BE ROTOTILLED INTO THE TOP
200mm OF EXISTING CLAY

UMA Engineering Ltd. (MB)
Certificate of Authorization
No. 256 Date: Feb 29/08

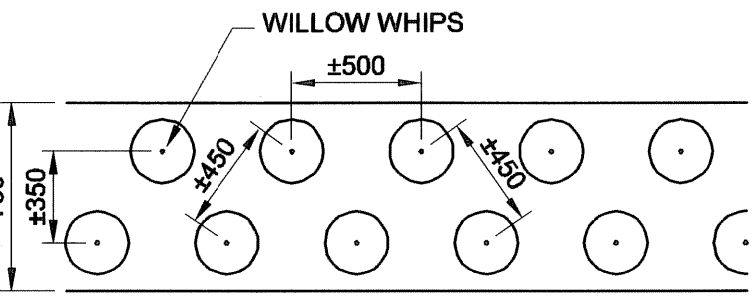
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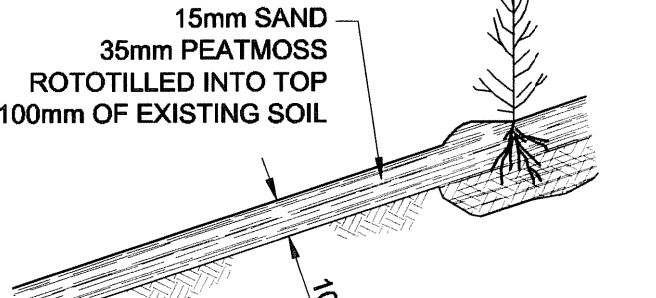
EXISTING TREE (Symbol)
EXISTING BUSH (Symbol)
PLANTING AREAS
3A UPPER BANK TREES AND SHRUBS (W)
3B UPPER BANK SHRUBS AND GRASSES (ECB)
3C+ UPPER BANK GRASSES AND WILD FLOWERS (ECB)
4A WILLOWS (ECB)
2A MID-BANK TREES AND SHRUBS (W)
2B MID-BANK SHRUBS AND GRASSES (H)
2C+ MID-BANK GRASSES (H - UNLESS NOTED OTHERWISE)
1A LOWER BANK TREES AND SHRUBS (W)
1B LOWER BANK SHRUBS AND GRASSES (H)
1C+ LOWER BANK GRASSES (H - UNLESS NOTED OTHERWISE)

BED FINISH

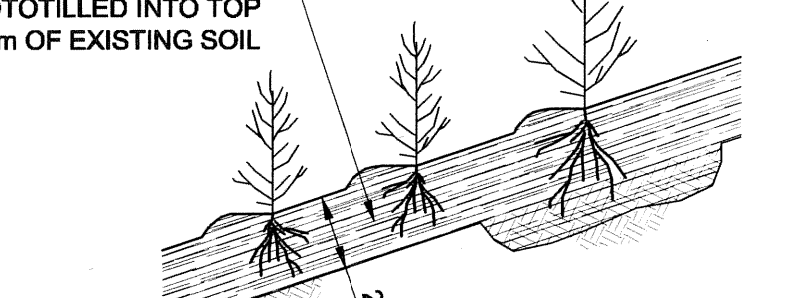
W = WOOD MULCH WITH EROSION CONTROL NETTING
ECB = EROSION CONTROL BLANKET
H = HYDRO MULCH



DETAIL 1
WILLOW WHIP PLANTING LAYOUT (4A)
SCALE 1:30



DETAIL 2
100mm DEEP SOIL AMENDMENTS (1B, 2B, 3B, 1C 2C, 3C)
SCALE 1:20



DETAIL 3
200mm DEEP SOIL AMENDMENTS (1A, 2A, 3A)
SCALE 1:20

POINT	NORTHING	EASTING	ELEVATION
100	5521133.01	633315.41	230.60
101	5520987.24	633435.17	230.74

LOCATION APPROVED UNDERGROUND STRUCTURES
SUPR. U/G STRUCTURES DATE COMMITTEE
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
0	ISSUED FOR CONSTRUCTION	08/02/28	LJV
		YYMMDD	

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DESIGNED BY LJV CHECKED BY
DRAWN BY LJV APPROVED BY
HOR. SCALE AS NOTED RELEASED FOR CONSTRUCTION
VERT. SCALE NA
DATE 08/02/29 DATE

PROFESSIONAL'S SEAL
the Manitoba Association of Landscape Architects
DONALD K. HESTER
member no. 32
CONSULTANT DRAWING NO. 002
0265-390-00

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT
St. Vital Park
Riverbank Stabilization Works
LANDSCAPE PLAN - WORK AREA A
STATION 2+41 TO STATION 5+88
SHEET 2 OF 3
CITY DRAWING NUMBER REV
S.15-BD-1 0