



Appendix C4
Summary of Vegetation Communities
in Study Area

**GO Transit Georgetown to Kitchener Rail Expansion
Summary of Natural Environment Features Adjacent to the ROW**

Location (Mile Marker)	Feature	Provincial Designation	Other Designation	Regulated by CA	ELC CODE	ELC Name	Dominant Species	% Tree Cover	Notes
Mile 68	Plantation	N/A	Waterloo Region Agreement Forest	Y	CUP3	Coniferous Plantation	White Pine with trembling aspen, white spruce, willow spp., black walnut and balsam poplar.	>60%	
Mile 68	Wetland	Petersburg Bog PSW	N/A	Y	N/A	N/A	N/A	N/A	Not directly assessed. Includes area of swamp thicket and open water marsh which transitions into coniferous plantation north of the ROW.
Mile 67	Wetland	N/A	Waldau Non-Provincially Significant Wetland Complex	Y	N/A	N/A	N/A	N/A	Not assessed.
Mile 66.5	Wetland	N/A	Waldau Non-Provincially Significant Wetland Complex	Y	MAS2	Mineral Shallow Marsh	Cattails	<25%	
Mile 59-Grand River Bridge	Woodland	N/A	N/A	Y	CUW1	Mineral Cultural Woodland	Manitoba maple, ash, trembling aspen, spruce, white cedar, red maple.	>35%, <60%	Public trail located on west side of bridge, private trailer park on the west side.
Mile 58	Forest	N/A	N/A	Y	FOD6	Fresh-Moist Sugar Maple Deciduous Forest	Sugar maple, white ash, black cherry, elm, white cedar, alternate-leaved dogwood.	>60%	This community is contiguous with a wetland area to the north that is part of the Breslau PSW Complex.
Mile 56.71	Wetland	Breslau Provincially Significant Wetland Complex	N/A	Y	SWD3	Maple Mineral Deciduous Swamp	Red maple, silver maple, green ash, balsam poplar, elm, buckthorn.	>60%	
Mile 55.23	Wetland	N/A	N/A	Y	N/A	N/A	N/A	N/A	Not assessed.
Mile 54.5	Wetland	Ellis Creek Provincially Significant Wetland	N/A	Y	N/A	N/A	N/A	N/A	Not assessed.
Mile 51	Forest	N/A	N/A	N	N/A	N/A	N/A	N/A	Not assessed.
Mile 46.5	Cultural Meadow	N/A	Guelph Interstadial Regional Earth Science ANSI	N	N/A	N/A	N/A	N/A	
Mile 46 West of Watson Pkwy	Wetland	Clythe Creek Provincially Significant Wetland	N/A	Y	SWC1	White Cedar Mineral Coniferous Swamp	White cedar, willow spp., trembling aspen, spruce spp., black cherry. A small area dominated by willows is located along the creek just north of the ROW.	>60%	
Mile 46 East of Watson Pkwy	Wetland	Clythe Creek Provincially Significant Wetland	N/A	Y	SWC1	White Cedar Mineral Coniferous Swamp	White cedar with some white pine and scotch pine.	>60%	North of the coniferous swamp (farther from the ROW) is a larger reed-canary grass meadow marsh (MAM2-2).
Mile 45.5	Wetland	Clythe Creek Provincially Significant Wetland	N/A	Y	N/A	N/A	N/A	N/A	Not assessed.
Mile 45	Plantation	N/A	N/A	N	CUP3	Coniferous Plantation	White pine	>60%	
Mile 43.63	Wetland	Clythe Creek Provincially Significant Wetland	N/A	Y	CUP3	Coniferous Plantation	Plantation of Scotch pine, now naturalizing with trembling aspen, elm, sugar maple, black cherry, basswood interspersed.	>60%	Section directly adjacent to ROW appeared to be dry and contained species typical of forest communities. Wetland conditions exist farther from ROW.

Location (Mile Marker)	Feature	Provincial Designation	Other Designation	Regulated by CA	ELC CODE	ELC Name	Dominant Species	% Tree Cover	Notes
Mile 41.5	ANSI	N/A	Amabel Formation Regional Earth Science ANSI	N	N/A	N/A	N/A	N/A	Located at a school.
Mile 41	Wetland	Eramosa River- Blue Creek Spring Provincially Significant Wetland Complex; Eramosa River Valley ANSI	N/A	Y	SWC1	White Cedar Mineral Coniferous Swamp	White cedar, some sugar maple small rocky upland areas throughout swamp.	>60%	
West of Mile 39	Wetland	Eramosa River- Blue Creek Spring Provincially Significant Wetland Complex	N/A	Y	N/A	N/A	N/A	N/A	Not assessed.
West of Mile 38	Wetland	Eramosa River- Blue Creek Spring Provincially Significant Wetland Complex	N/A	Y	SWC	Mineral Coniferous Swamp	Portions viewed contained scotch pine plantation with white pine, white ash and trembling aspen. A small area of red-osier dogwood thicket was found along the eastern-most watercourse running through the community.	>60%	Portions inaccessible.
Between Mile 36.77 and 36.39	Woodland	N/A	N/A	Y	CUW1	Mineral Cultural Woodland	White cedar and trembling aspen.	>35%, <60%	Community to the south of the ROW is a PSW.
Mile 34.4	Wetland	Black Creek at Acton Provincially Significant Wetland	N/A	Y	MAM2	Mineral Meadow Marsh	Reed-canary grass, silky dogwood, red osier dogwood, elm, trembling aspen, Manitoba maple, cattails, standing snags. Steep slope up to the ROW included species such as sugar maple, elm, white cedar and Manitoba maple.	Tree and shrub cover <25%	
Mile 34.4	Forest	Black Creek at Acton Provincially Significant Wetland	N/A	Y	FOD6	Fresh-Moist Sugar Maple Deciduous Forest	Sugar maple, trembling aspen, elm, white ash, red pine, crabapple.	>60%	Community adjacent to ROW is a dry forest community that slopes down from the ROW to the wetland below.
Mile 34.4	Woodland	N/A	N/A	Portions	CUW1	Mineral Cultural Woodland	White cedar with open canopy.	>35%, <60%	
Mile 33	Wetland	Black Creek at Acton Provincially Significant Wetland		Y	SWT2	Mineral Thicket Swamp	Willow shrub spp., red-osier dogwood, white cedar	tree cover<25%, hydohpytic shrubs >25%	Not directly assessed, viewed from 4th Line
Mile 31.59	Forest			Portions	FOM6	Fresh-Moist Hemlock Mixed Forest	Hemlock, sugar maple, white pine, white ash with lesser amounts of black cherry, white cedar, elm, bitternut, ironwood and buckthorn.	>60%	One butternut tree was identified, not in the vicinity of the ROW., A trail runs through the community on the south side. Community assessed from south side, north side appeared similar.
Credit River Bridge-west side	Woodland			Y	CUW1	Mineral Cultural Woodland	Manitoba maple, white ash, white cedar, sugar maple, buckthorn, hawthorn.	>35%, <60%	
Credit River Bridge-east side	Forest			Y	FOD6	Fresh-Moist Sugar Maple Deciduous Forest	Sugar maple, ash, white birch, Manitoba maple, willow spp., white cedar.	>60%	Not directly assessed, viewed from west side.

**GO Transit Georgetown to Kitchener Rail Expansion
Summary of Natural Environment Features at Alternative Station and Layover Sites**

Station Alternative	Description	Designated Features	Regulated Areas	Location of Feature	ELC CODE	ELC Name	Dominant Species	Photograph ID
Baden - Nafziger Rd.	Predominantly agricultural land with a narrow and sparse line of meadow and treed vegetation directly adjacent to the ROW. A woodlot is located to the south of the site.	Woodlot south of the site is a locally significant natural area in the Township of Wilmot Official Plan.	None	Narrow strip along ROW	N/A	N/A	Red-osier dogwood, carbapple, hawthorn, elm,, common shrubs and vines.	1 & 2
				Woodlot south of the site	FOD5	Dry-Fresh Sugar Maple Deciduous Ecosite	Sugar maple, American beech, White ash, Ironwood, Elm spp.	
Baden - Sandhills Rd.	Predominantly agricultural land with a narrow and sparse line of meadow and treed vegetation directly adjacent to the ROW.	N/A	None	Narrow strip along ROW	N/A	N/A	Saghorn sumac, crabapple, red osier dogwood	3
Petersburg	Predominantly agricultural land with a narrow and sparse line of meadow and treed vegetation directly adjacent to the ROW.	N/A	None	Narrow strip along ROW	N/A	N/A	Common meadow grasses and forbs such as asters, goldenrod, milkweed as well as some trees such as white ash, Manitoba maple, basswood and balsam poplar.	4
Kitchener - Ira Needles	Manicured grass with two wetland features. A narrow strip of trees runs adjacent to the ROW along the eastern portion of the site. A number of hydro towers are located throughout the site in relation to the power generating station to the south.	Both wetlands are part of the Waldau Non-PSW Complex.	Two wetlands are regulated by the GRCA. Any development within 120m requires a permit under the development, Interference with Wetlands and Alterations to Shorelines and Watercourses Reg.	Western wetland	MAS2	Mineral Shallow Marsh	Cattails, pondweed.	5 & 6
					SWT2	Mineral Thicket Swamp	Willows, red-osier dogwood, reed-canary grass, cattails.	
				Eastern Wetland	MAS2	Mineral Shallow Marsh	Cattails with a small area of common reed (pragmatism)	
					SWT2	Mineral Thicket Swamp	Willows, red-osier dogwood, reed-canary grass	
				Western end of site	CUM1	Mineral Cultural Meadow	Common meadow forb and grass species.	
				Narrow strip along ROW	N/A	N/A	Black cherry.	
Breslau - Fountain St.	A disturbed site. The western portion is covered by old broken pavement and a large gravel area is located at the eastern end. A number of gravel trails run throughout the property. Vegetation is culturally-influenced, primarily consisting of meadow with small treed patches interspersed. A larger and more significant deciduous/coniferous mixed forest is located to the north.	Wetland to the north of the site is part of the Breslau Provincially Significant Wetland Complex.	None	Throughout the site	CUM1	Mineral Cultural Meadow	Common meadow forb and grass species.	7
				Strip through centre of site.	CUP3	Coniferous Plantation	Scotch pine and white cedar.	
				Small pockets through out the meadow.	CUW1	Mineral Cultural Woodland	Balsam poplar, trembling aspen, white cedar in small patches.	
				Treed area north of the site.	SWM1	White Cedar Mineral Mixed Swamp	White cedar mixed with maple, ash and poplar species.	
Breslau - Greenhouse Rd.	A previously disturbed site with portions gravel ground cover and trails running throughout the site. Areas of cultural meadow were interspersed with small woodland areas. Some standing water was present as a result of improper drainage from the trails. A reed-canary grass wetland runs across the northeast corner of the site. Agricultural lands were located to the north of the site and a deciduous forest was located to the west.	Wetland community in the northeast corner of the site is part of the Breslau Provincially Significant Wetland Complex. Wetlands directly south of the ROW adjacent to the site are also part of this PSW Complex.	The wetland running from the north through the northeast corner of the site is regulated by the GRCA. Any development within 30m requires a permit under the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Reg.	Throughout the site	CUM1	Mineral Cultural Meadow		8 & 9
				Scattered patches throughout the site.	CUW1	Mineral Cultural Woodland	Several small woodland patches included poplars, sumac, Manitoba maple and willow species. A cluster of trees in the central portion so the site was dominated by Siberian elm, while the largest patch is dominated by Manitoba maple.	
				Northeast corner of the site.	MAM2	Mineral Meadow Marsh	Reed-canary Grass.	
				Wooded area to the west fo the site.	FOD5	Dry-Fresh Sugar Maple Deciduous Forest	Dominated by sugar maple and white ash with elm white cedar, black cherry and laternate leaved dogwod.	

Station Alternative	Description	Designated Features	Regulated Areas	Location of Feature	ELC CODE	ELC Name	Dominant Species	Photograph ID
Guelph - Lafarge	The site has some previous disturbance. Areas with gravel fill and compacted soil are found throughout the site. Vegetation communities were typical of disturbed sites, with a relatively open canopy and dominated by species with a tolerance for disturbed conditions. A watercourse and more densely vegetated riparian area were located along the eastern edge of the site. A number of unauthorized trails run throughout the site.	Several butternut trees, listed as Endangered under the Ontario Endangered Species Act were found throughout the site.	The watercourse and associated floodplain are regulated by the GRCA under the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Reg. Several butternut trees, listed as Endangered under the Ontario Endangered Species Act were found throughout the site.	Western edge of the site	CUM1	Mineral Cultural Meadow	Dominated by meadow species including asters, goldenrods, queen Anne's lace and grasses. Some trees were scattered throughout the meadow and included Manitoba maple, buckthorn, staghorn sumac and willows.	10
				Central portion of the site	CUW1	Mineral Cultural Woodland	Dominated almost entirely by Siberian elm. Other species included staghorn sumac, buckthorn, cottonwood, scotch pine, crabapple, bur oak and trembling aspen. A butternut tree was noted in this community east of a makeshift firepit located near the ROW.	
				Riparian area at eastern edge of the site	FOD7	Fresh-Moist Lowland Deciduous Forest	Dominated by Manitoba maple and Siberian elm. At least one butternut was noted in this community near the ROW at the Mile 50 marker.	
Guelph - Watson Rd.	Several residences are located within the western-most portion of the site. Vegetation is culturally-influenced and includes a Scotch pine plantation. A large berm is present in the central portion of the site, separating a sparsely wooded area from an open meadow area. A watercourse is located north of the site.	Lands north and east of the site are part of the Clythe Creek Provincially Significant Wetland.	Portions of the site are regulated as lands adjacent to a watercourse and PSW. It is not believed the floodplain of Clythe Creek extends onto the site. This should be confirmed with the GRCA.	Western edge of the site on residential lands.	CUP3	Coniferous Plantation	Scotch pine planted in rows.	11
				Northern and western portion of the site.	CUM1	Mineral Cultural Meadow	Variety of common meadow forbs and grasses.	
				Southern portion of the site, south of the berm.	CUW1	Mineral Cultural Woodland	Sparse canopy cover of scotch pine, white cedar, trembling aspen and Manitoba maple.	
Acton - Dublin Line	Predominantly agricultural land with a narrow and sparse line of meadow and treed vegetation directly adjacent to the ROW. Site abuts a small wetland area to the east.	N/A	Small wetland is regulated by CVC. Any development within 120m requires a permit under the development, Interference with Wetlands and Alterations to Shorelines and Watercourses Reg.	At the eastern edge of the site.	MAS2	Mineral Shallow Marsh	Cattails with lesser amounts of red osier dogwood and willow shrubs at the wetland edge.	12
Acton- Olde Hide House	Site completely within existing parking area at the Olde Hide House in Acton's urban centre. No natural features present.	N/A	None	N/A	N/A	N/A	N/A	

Photographs of Alternative Station and Layover Sites



Photo 1 – Nafziger Road Layover Site



Photo 2 – Nafziger Road Layover Site



Photo 3 – Sandhills Road Layover Site



Photo 4 – Petersburg Layover Site



Photo 5 – Ira Needles Boulevard Station / Layover Site



Photo 6 – Ira Needles Boulevard Station / Layover Site



Photo 7 – Fountain Street Station / Layover Site



Photo 8 – Greenhouse Road Station / Layover Site



Photo 9 – Greenhouse Road Station / Layover Site



Photo 10 – Lafarge Station Site



Photo 11 – Watson Road Station Site



Photo 12 – Dublin Line Station Site