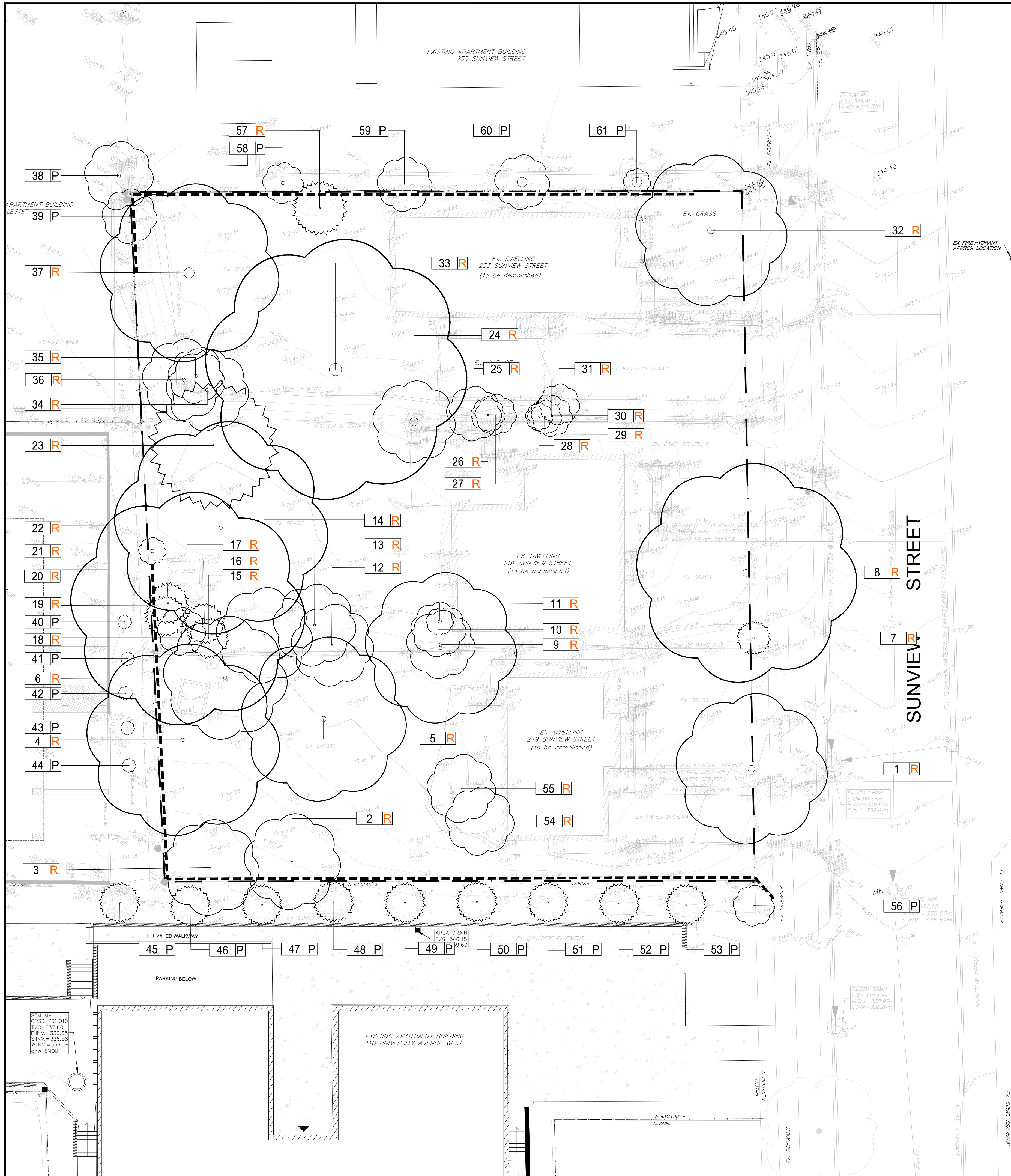




TREE PROTECTION FENCING

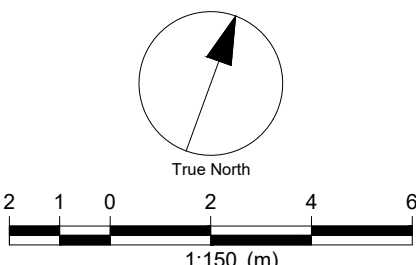
1. The Contractor shall install Tree Protection Fencing (TPF) to protect trees identified for preservation.
2. All TPF will conform with the detail(s) included on these plans. Where current governing Municipal/City standards differ, contact Project Arborist or Contract Administrator for direction.
3. No substitutions of materials, products or quantities will be accepted without the prior written permission of the Project Arborist.
4. Upon installation of the TPF, the Contractor shall contact the Project Arborist to review and approve the fencing and location(s) in writing prior to commencement of any site work.
5. The TPF shall remain in the approved locations throughout the duration of the site works and shall not be moved at any time to accommodate construction or site work.
6. The Contractor shall inspect TPF weekly and maintain as required through all stages of development/construction. The TPF shall be removed at the completion of all site works and disturbed areas shall be restored to original condition.

TREE PRESERVATION

1. The Tree Protection Zone (TPZ) is protected and delineated by the TPF or as otherwise defined on this plan. The Contractor is not to proceed in uncertainty.
2. Any potential or incurred injury/damage to adjacent tree(s) identified to be preserved shall be immediately reported to the Project Arborist and reviewed on site. Injury/damage includes any required arboricultural treatment including but not limited to: limb pruning, trunk damage, root exposure or required cutting/removal or any other activity that has the potential to harm the tree.
3. The TPZ is not to be used for any type of storage including materials, equipment or stockpiles.
4. No trenching or tunneling for underground services shall occur within the TPZ.
5. Any equipment use within the TPZ will be restricted throughout all stages of development. This applies to TPZs within or outside of the project limit line.
6. Absolutely no alteration of grades or construction activity is permitted within the TPF and TPZ. Absolutely no flushing of contaminant shall be permitted towards or within the TPZ.
7. When working adjacent to trees to be preserved site preparation measures such as pruning for overhead clearance may be required. Preparatory pruning shall only be performed when completed by or under the direct supervision of an ISA Certified Arborist (or approved qualified person as approved by the Project Arborist).
8. All pruning work shall be performed by a qualified individual and shall be in accordance with current horticultural practices including but not limited to:
 - a. Pruning cuts shall be made just beyond the branch collar and should be limited to thinning cuts. Heading cuts will only be accepted in specific cases as directed by an arborist and should be avoided where possible.
 - b. Pruning of all stems greater than 50 mm in diameter should be made with a three-cut method to avoid tearing living bark tissue.
 - c. No wound dressings shall be applied.
16. Where soil excavation/grading work is required within the rooting zone of a tree to be preserved (the rooting zone often extends beyond the identified TPZ and can be 3 times the dripline radius or more):
 - a. Roots shall be cleanly severed before stripping and removing soil to avoid damage to the tree and the root system. Roots to be cut using appropriate equipment (i.e. trencher adapted to this specific use/chainsaw/root pruning machine). Roots may be severed using the clean edge of a straight excavator bucket under supervision of an ISA Certified Arborist.
 - b. No attempts to cut existing roots with the digging bucket of any heavy machinery will be permitted as it can cause the roots to tear and pull and be harmful to root regeneration and recovery.
 - c. Any exposed roots of a tree to be preserved with a diameter greater than 2.5cm (1 inch) shall be pruned back to the soil face.
 - d. An excavation area within the TPZ shall be backfilled immediately and/or roots shall be kept constantly moist with burlap covered with white plastic and checked a minimum of 2 times a day, for a maximum of 48 hours. If roots are to be exposed for a period greater than 48 hours, the exposed area shall be covered with a minimum of 150 mm (6 inches) of mulch and maintained in a moist condition during construction until the area can be properly backfilled.
17. Trees shall not have any rigging cables, fencing, signage or hardware of any sort attached or wrapped around them.
18. No contaminants or toxic materials shall be dumped or flushed where they may come into contact with the feeder roots of trees to be preserved.
19. The Contractor will be held responsible for all avoidable damage to preserved trees during all stages of construction.
20. Watering or other maintenance of trees to be preserved may be required if construction activities are observed to be causing stress or impacting health as determined by the Project Arborist.

TREE REMOVALS

1. Prior to the commencement of tree removals, all trees designated for removal must be clearly identified in the field.
2. Where possible, removals, chipping, and/or brush removal is to be completed outside of migratory bird nesting season from April 1 to August 31. If removals are to occur within the restricted activity period, due diligence measures, including pre-clearing nest sweeps will be employed to reduce risk to nesting birds protected under the Migratory Birds Convention Act, 1994 and Migratory Birds Regulations. These surveys must be completed by a qualified biologist or ornithologist.
3. Trees shall always be felled away from adjacent preserved trees to prevent avoidable damage to the crowns and stems



WORK WITHIN THE TREE PROTECTION ZONE AND/OR WITHIN THE DRIPLINE OF TREES TO BE PRESERVED WILL BE UNDERTAKEN IN THE PRESENCE OF A CERTIFIED TREE PROFESSIONAL. SUITABLE MEASURES SUCH AS HYDROVAC SOIL EXCAVATION, TUNNELING AND ROOT PRUNING SHALL BE UNDERTAKEN UNDER THE GUIDANCE OF THE CERTIFIED PROFESSIONAL.

CLIENT

LESTER SUNVIEW
DEVELOPMENT INC.

11 PAULTIEL DRIVE., TORONTO,
ONTARIO M2M 3P4

COPYRIGHT

This drawing has been prepared solely for the intended use, thus any reproduction or distribution for any purpose other than authorized by Arcadis is forbidden. Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job, and Arcadis shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to Arcadis for general conformance before proceeding with fabrication.

Arcadis Professional Services (Canada) Inc.

is a part of Arcadis

ISSUES	No.	DESCRIPTION	DATE
1	ISSUED FOR 60% DESIGN REVIEW	2022-08-15	
2	ISSUED FOR SPA	2022-10-19	
3	ISSUED FOR ZBA	2023-09-08	
4	ISSUED FOR SECOND ZBA	2024-07-17	

KEY PLAN

LEGEND

EXISTING DECIDUOUS AND CONIFEROUS TREE

PROJECT SITE BOUNDARY

TREE PROTECTION FENCE

TREE IDENTIFICATION TAGS

000 P → TREE TO BE PRESERVED

000 R → TREE TO BE REMOVED

PRIME CONSULTANT

ARCADIS

410 Albert Street - Suite 101
Waterloo ON N2L 3V3 Canada
tel 519 585 2255
www.arcadis.com

PROJECT

249-253 SUNVIEW STEET

CITY OF WATERLOO

PROJECT NO:

139419

DRAWN BY:

E.L.

CHECKED BY:

M.P.

PROJECT MGR:

M.P.

APPROVED BY:

T.M.

SHEET TITLE

TREE PRESERVATION PLAN

SHEET NUMBER

TPP-1

ISSUE

4

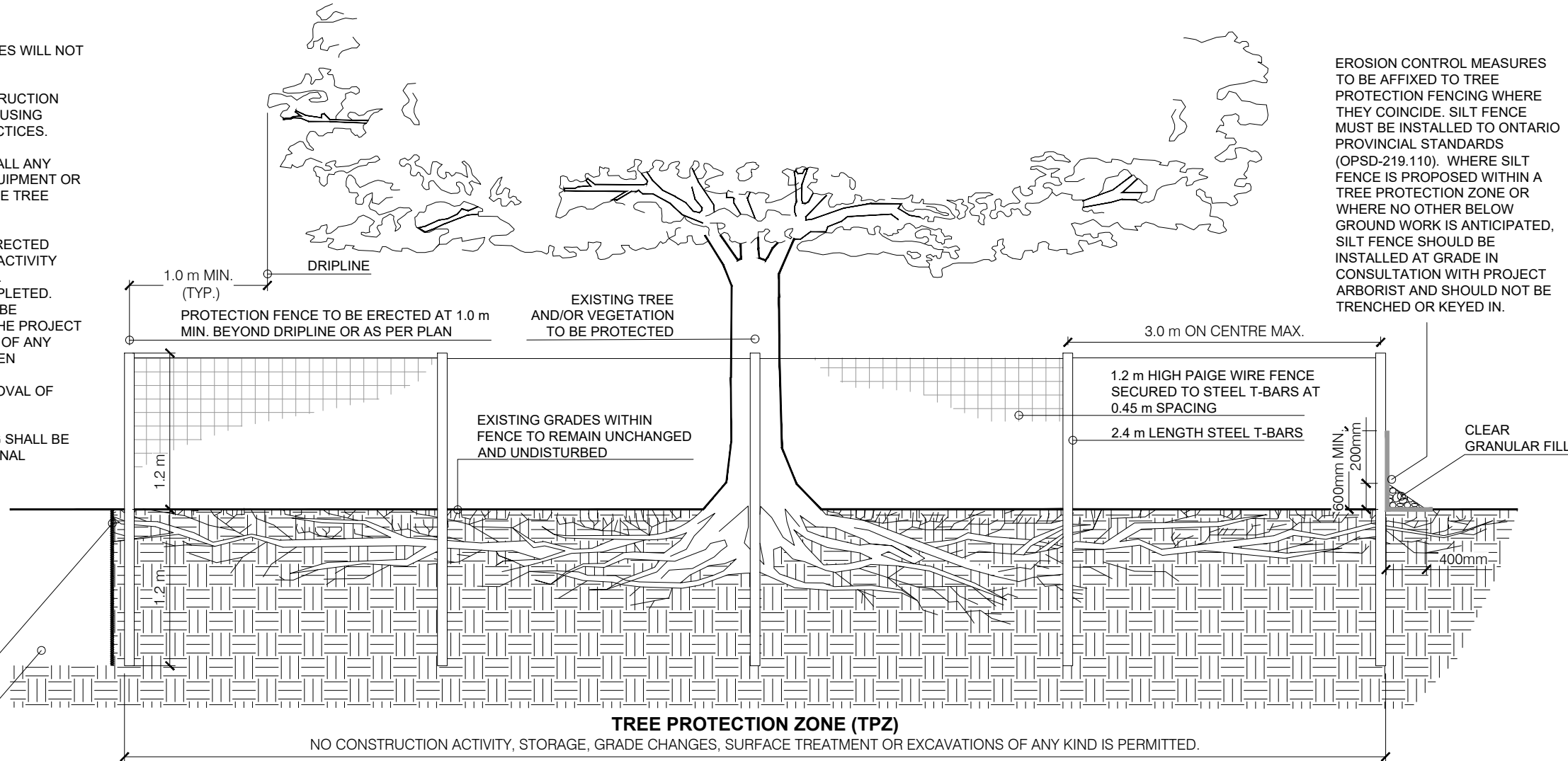
NOTES:

- ATTACHMENT OF FENCE TO TREES WILL NOT BE PERMITTED.
- ANY ROOTS EXPOSED IN CONSTRUCTION AREA ARE TO BE HAND PRUNED USING PROPER ARBORICULTURAL PRACTICES.
- UNDER NO CIRCUMSTANCES SHALL ANY CONSTRUCTION MATERIALS, EQUIPMENT OR VEHICLES BE PLACED WITHIN THE TREE PROTECTION ZONE.
- ALL TREE PROTECTION TO BE ERECTED PRIOR TO ANY CONSTRUCTION ACTIVITY AND REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS BEEN COMPLETED. TREE PROTECTION FENCING TO BE REVIEWED AND APPROVED BY THE PROJECT ARBORIST PRIOR TO THE START OF ANY CONSTRUCTION. OBTAIN WRITTEN APPROVAL FROM CONTRACT ADMINISTRATOR PRIOR TO REMOVAL OF FENCING.
- ALL TREE PROTECTION FENCING SHALL BE REMOVED PRIOR TO PROJECT FINAL ACCEPTANCE.

PRUNE ANY ROOTS ENCOUNTERED DURING EXCAVATION BY CLEARLY SEVERING ROOTS PRIOR TO STRIPPING AND REMOVAL OF SOIL. ANY EXPOSED ROOTS <2.5m SHALL BE PRUNED BACK TO SOIL FACE TO PREVENT FURTHER DAMAGE.

EXCAVATED SUBGRADE (DEPTH VARIES)

1 TREE PROTECTION FENCE
TPP-2 N.T.S.



EROSION CONTROL MEASURES TO BE AFFIXED TO TREE PROTECTION FENCING WHERE THEY COINCIDE. SILT FENCE MUST BE INSTALLED TO ONTARIO PROVINCIAL STANDARDS (OPSD-219.110). WHERE SILT FENCE IS PROPOSED WITHIN A TREE PROTECTION ZONE OR WHERE NO OTHER BELOW GROUND WORK IS ANTICIPATED, SILT FENCE SHOULD BE INSTALLED AT GRADE IN CONSULTATION WITH PROJECT ARBORIST AND SHOULD NOT BE TRENCHED OR KEYED IN.

TREE INVENTORY TABLE:

Table 1 - Existing Tree Inventory
Sunview Street, City of Waterloo, Ontario
Project #: 133419
Data observed on August 12, 2022.

Tag #	Species	Common Name	Diameter at Breast Height (DBH) cm or range (cm)	Drip Line Radius (m)	Condition				Recommended Action	Ownership	Notes
					Trunk	Canopy	Vigour	Overall			
1	Acer platanoides	Norway Maple	45.5	5.5	F	P	P	Poor	Remove	Subject Property	
2	Fraxinus pennsylvanica	Green Ash	11,11,11	3.5	P	P	P	Poor	Remove	Subject Property	Notes /Action: 1.8m High trunk split with crotch - rot with 30% die back in crown. Weak tree and not in good health.
3	Fraxinus pennsylvanica	Green Ash	6,6,6,4	3.5	P	P	P	Poor	Remove	Subject Property	Triple leader from base, poorly maintained appears to be a self-seeded tree
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	4 leaders from the base - poor growth development and photo corrective
5	Acer platanoides	Norway Maple	44	6	F	F	F	Fair	Remove	Subject Property	This tree has been affected by the residential development behind this property and needed to be removed
6	Robinia pseudoacacia	Black Locust	23	4.5	G	F	F	Fair	Remove	Subject Property	10% dieback, root girdled, canopy open inside and a large split in the main branch
7	Juniperus spp.	Cedar	16	1.2	P	P	P	Poor	Remove	Subject Property	Poor overall structure, photo corrective and canopy is lopsided.
8	Acer platanoides	Norway Maple	53	8	F	P	P	Poor	Remove	Subject Property	main leader has been broken off and no overall structure is present. No street value and past its life expectancy
9	Fraxinus pennsylvanica	Green Ash	25	5.5	P	P	P	Poor	Remove	Subject Property	lower branching affecting pedestrians on city sidewalk, open canopy with 30% dieback and tree is struggling. Root girdled
10	Fraxinus pennsylvanica	Green Ash	12	2	P	P	P	Poor	Remove	Subject Property	lopsided, photo corrective and based is scared with a weak leader
11	Fraxinus pennsylvanica	Green Ash	11	2	P	P	P	Poor	Remove	Subject Property	lopsided, photo corrective and growing out of foundation
12	Ulmus rubra	Serbian Elm	8,6	3	P	P	P	Poor	Remove	Subject Property	Double leader at base, photo corrective and crown is lopsided
13	Ulmus rubra	Serbian Elm	8,15	3	P	P	P	Good	Remove	Subject Property	Overall condition is poor and not a good specimen, double leader at 300mm
14	Ulmus rubra	Serbian Elm	16	3.5	G	P	P	Fair	Remove	Subject Property	Co-dominant leader ~2m up from the grade; epicormic growth present in canopy
15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Remove	Subject Property	removed already due to adjacent development
24	Fraxinus pennsylvanica	Green Ash	66	3	P	P	P	Poor	Remove	Subject Property	Multi stem and photo corrective
25	Robinia pseudoacacia	Black Locust	8	2	P	P	P	Poor	Remove	Subject Property	
26	Robinia pseudoacacia	Black Locust	8	1.2	P	P	P	Poor	Remove	Subject Property	
27	Robinia pseudoacacia	Black Locust	8	1.5	P	P	P	Poor	Remove	Subject Property	
28	Robinia pseudoacacia	Black Locust	8	1	P	P	P	Poor	Remove	Subject Property	
29	Robinia pseudoacacia	Black Locust	8	1.2	P	P	P	Poor	Remove	Subject Property	
30	Robinia pseudoacacia	Black Locust	8	1.5	P	P	P	Poor	Remove	Subject Property	
31	Robinia pseudoacacia	Black Locust	12	1.5	P	P	P	Poor	Remove	Subject Property	
32	Acer platanoides	Norway Maple	53	5.5	P	P	P	Poor	Remove	Subject Property	10% dieback, open canopy, weak overall form and various scars on the trunk from poor maintenance
33	Acer platanoides	Norway Maple	91	9.5	P	P	P	Poor	Remove	Subject Property	10% dieback, 6 multiple leaders at 900mm high, crotch rot and weak transitions
34	Ulmus rubra	Serbian Elm	22,24	3	P	P	P	Poor	Remove	Subject Property	2 leaders at the base
35	Ulmus rubra	Serbian Elm	N/A	N/A	N/A	N/A	G	Poor	Remove	Subject Property	Dead
36	Ulmus rubra	Serbian Elm	22,24	3	P	P	P	Poor	Remove	Subject Property	2 leaders at the base with a weak union
37	Acer saccharum	Sugar Maple	76	6.5	P	P	P	Poor	Remove	Subject Property	Co-dominant stems ~5m up from ground.
38	Tilia spp.	Basswood	10	2.5	G	G	G	Good	Preserve and Protected	Subject Property	Neighbours tree
39	Tilia spp.	Basswood	11.5	2	G	G	G	Good	Preserve and Protected	Subject Property	Neighbours tree, some dieback on the south side of the canopy (10%)
40	Quercus alba	Pyramidal White Oak	6	0.5	G	G	G	Good	Preserve and Protected	Neighbour	
41	Quercus alba	Pyramidal White Oak	6	0.5	G	G	G	Good	Preserve and Protected	Neighbour	
42	Quercus alba	Pyramidal White Oak	6	0.5	G	G	G	Good	Preserve and Protected	Neighbour	
43	Quercus alba	Pyramidal White Oak	6	0.5	G	G	G	Good	Preserve and Protected	Neighbour	
44	Quercus alba	Pyramidal White Oak	6	0.5	G	G	G	Good	Preserve and Protected	Neighbour	
45	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
46	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
47	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
48	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
49	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
50	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
51	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
52	Picea pungens	Blue Spruce	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
53	Picea pungens	Blue Spruce	28	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
54	Acer platanoides	Norway Maple	4,6,6,4,6	2.5	P	P	P	Poor	Remove	Subject Property	Self seeded with 6 stems from the base and formed at the building foundation
55	Fraxinus pennsylvanica	Green Ash	4,6,6,4,7	2.5	P	P	P	Poor	Remove	Subject Property	Multistem at base, self seeded and growing out of the deck
56	Acer rubrum	Red Maple	13.5	1.5	G	G	G	Good	Preserve and Protected	Neighbour	Neighbours tree
57	Pinus spp.	Pine	12	2	G	G	G	Good	Remove	Subject Property	70% dead with leader cut off
58	Tilia cordata	Little Leaf Linden	10	1.5	G	G	G	Good	Preserve and Protected	Neighbour	
59	Tilia cordata	Little Leaf Linden	81.5	2	G	G	G	Good	Preserve and Protected	Neighbour	
60	Tilia cordata	Little Leaf Linden	7.5	2	G	G	G	Good	Preserve and Protected	Neighbour	
61	Tilia cordata	Little Leaf Linden	7.5	1	G	G	G	Good	Preserve and Protected	Neighbour	

TOTAL OF 40 TREES BE REMOVED

CLIENT
LESTER SUNVIEW
DEVELOPMENT INC.

11 PAULTIEL DRIVE., TORONTO,
ONTARIO M2M 3P4

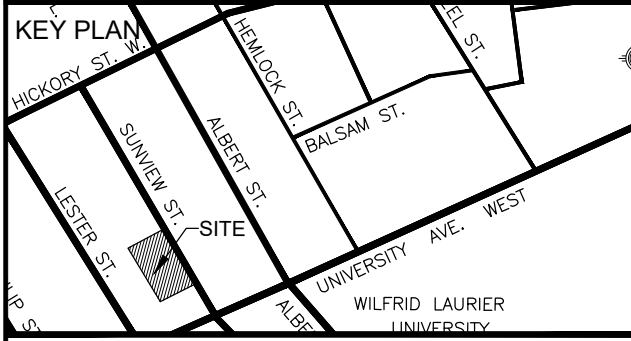
COPYRIGHT

This drawing has been prepared solely for the intended use, thus any reproduction or distribution for any purpose other than authorized by Arcadis is forbidden. Written dimensions shall have precedence over scaled dimensions. Contractors shall verify and be responsible for all dimensions and conditions on the job, and Arcadis shall be informed of any variations from the dimensions and conditions shown on the drawing. Shop drawings shall be submitted to Arcadis for general conformance before proceeding with fabrication.

Arcadis Professional Services (Canada) Inc.
is a part of Arcadis

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR 60% DESIGN REVIEW	2022-08-15
2	ISSUED FOR SPA	2022-10-19
3	ISSUED FOR ZBA	2023-09-08
4	ISSUED FOR SECOND ZBA	2024-07-17



PRIME CONSULTANT



410 Albert Street - Suite 101
Waterloo ON N2L 3V3 Canada
tel 519 585 2255
www.arcadis.com

PROJECT
249-253 SUNVIEW STEET

CITY OF WATERLOO

PROJECT NO:

139419

DRAWN BY:

E.L.

CHECKED BY:

M.P.

PROJECT MGR:

M.P.

APPROVED BY:

T.M.

SHEET TITLE

TREE PRESERVATION PLAN

SHEET NUMBER

TPP-2

ISSUE

4