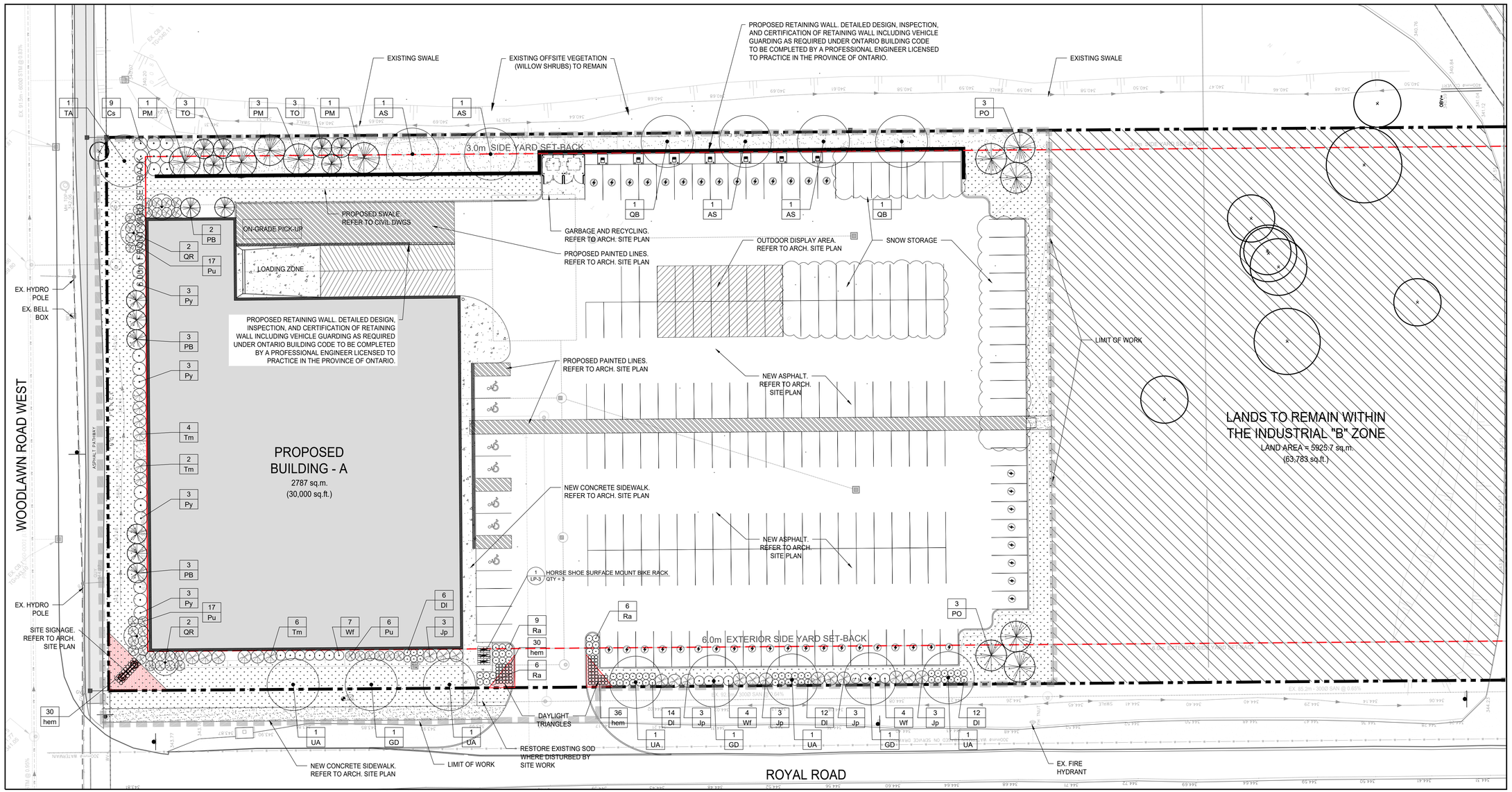


LEGEND

- PROPERTY LINE
- SET BACK LINE
- PROPOSED DECIDUOUS TREES — IN INDIVIDUAL MULCHED SAUCERS
- PROPOSED CONIFEROUS TREES — IN INDIVIDUAL MULCHED SAUCERS
- PROPOSED DECIDUOUS SHRUBS — IN CONTINUOUSLY MULCHED BEDS
- PROPOSED CONIFEROUS SHRUBS — IN CONTINUOUSLY MULCHED BEDS
- PROPOSED SOD — BLUEGRASS/FINE FESCUE MIX NO.1 COMMERICAL GRADE NURSERY SOD COMPLETE WITH 150MM DEPTH TOPSOIL REFER TO NOTES ON DRAWING LP-2
- PROPOSED NATIVE SEEDING — EARLY SUCCESSION MEADOW MIX WITH NURSE CROP HYDRAULICALLY APPLIED COMPLETE WITH 150MM DEPTH TOPSOIL REFER TO NOTES ON DRAWING LP-2 AND SEED MIX COMPOSITION ON DRAWING LP-3
- QTY / SPE — PLANT KEY
- LIMIT OF WORK

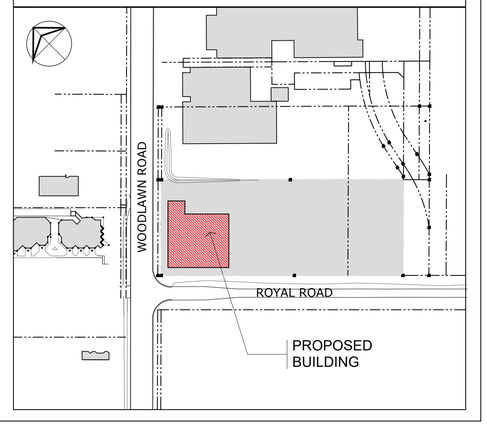
MASTER PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	REMARKS
TREES						
AS	4	ACER SACCARINUM	SILVER MAPLE	60mm Caliper	Wire Basket	12m On Center Spacing
GD	3	GYMNOCLADUS DIOICUS	KENTUCKY COFFEE TREE	60mm Caliper	Wire Basket	12m On Center Spacing
PM	5	PICEA MARIANA	BLACK SPRUCE	200cm Height	Wire Basket	5m On Center Spacing
PO	6	PICEA OMORIKA	SERBIAN SPRUCE	200cm Height	Wire Basket	5m On Center Spacing
PB	8	PICEA OMORIKA 'BRUNS'	BRUNS SERBRIAN SPRUCE	200cm Height	Wire Basket	3m On Center Spacing
QB	2	QUERCUS BICOLOR	SWAMP WHITE OAK	60mm Caliper	Wire Basket	12m On Center Spacing
QR	4	QUERCUS ROBUR x ALBA 'SKINNY GENES'	SKINNY GENES OAK	60mm Caliper	Wire Basket	3m On Center Spacing
TO	6	THUJA OCCIDENTALIS	EASTERN WHITE CEDAR	200cm Height	Wire Basket	3m On Center Spacing
TA	1	TILIA AMERICANA	BASSWOOD	60mm Caliper	Wire Basket	12m On Center Spacing
UA	5	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE ELM	60mm Caliper	Wire Basket	12m On Center Spacing
	44	TOTAL TREES*				

*TWO HUNDRED EIGHTEEN (218) COMPENSATION TREES REQUIRED DUE TO TREE REMOVAL. REFER TO DRAWING TP-2 FOR COMPENSATION CALCULATION USING AGGREGATE CALIPER FORMULA PER CITY OF GUELPH TREE TECHNICAL MANUAL.

SHRUBS						
Cs	9	CORNUS SERICEA	RED OSIER DOGWOOD	50cm Height	3 Gallon Potted	2m On Center Spacing
Dl	44	DIERVILLA LONICERA	BUSH HONEYSUCKLE	50cm Height	3 Gallon Potted	1m On Center Spacing
Jp	15	JUNIPERUS X PFITZERIANA 'PFITZERIANA GLAUCA'	BLUE PFITZER JUNIPER	50cm Spread	5 Gallon Potted	2m On Center Spacing
Py	12	PHYSOCARPUS OPULIFOLIUS	COMMON NINEBARK	50cm Height	3 Gallon Potted	1.5m On Center Spacing
Pu	40	PINUS MUGO 'SLOWMOUND'	SLOWMOUND MUGO PINE	50cm Spread	5 Gallon Potted	1.5m On Center Spacing
Ra	21	RHUS AROMATICA 'GRO-LOW'	GRO LOW FRAGRANT SUMAC	50cm Height	3 Gallon Potted	1m On Center Spacing
Tm	12	TAXUS X MEDIA 'DENSIFORMIS'	DENSE YEW	50cm Spread	5 Gallon Potted	2m On Center Spacing
Wf	15	WEIGELA FLORIDA 'WINE & ROSES'	WINE & ROSES WEIGELA	50cm Height	3 Gallon Potted	1.5m On Center Spacing
	168	TOTAL SHRUBS				
PERENNIALS						
hem	96	HEMEROCALLIS 'RUBY STELLA' OR 'PARDON ME'	REBLOOMING DAYLILLY	-	1 Gallon Potted	50cm On Center Spacing
	96	TOTAL PERENNIALS				

KEY MAP



RESTORE DISTURBED SOILS IN MUNICIPAL RIGHT OF WAY WITH BLUEGRASS/FINE FESCUE MIX NO. 1 NURSERY SOD (OPSS MUNI 803) C/W 150MM DEPTH TOPSOIL (SS-20, SP-73, OPSS MUNI 802) IN ACCORDANCE WITH APPLICABLE CITY OF GUELPH AND ONTARIO PROVINCIAL STANDARDS

GRADING AND SERVICING SHOWN ON THIS PLAN FOR COORDINATION ONLY. DO NOT USE THIS PLAN FOR CONSTRUCTION OF GRADING AND SERVICING ITEMS.

ONLY PRUNE QUERCUS (OAK) TREES BETWEEN JANUARY AND MARCH TO MITIGATE THE RISK OF CONTRACTING OR SPREADING OAK WILT

No.	REVISIONS	date
02	OFFICIAL PLAN AMENDMENT AND ZONING BY-LAW AMENDMENT	08.02.25
01	ISSUED FOR ZONING AMENDMENT	20.12.24

PROJECT NORTH

TRUE NORTH

scale 1:300

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — NOT FOR CONSTRUCTION

drawn	JL
last worked on	08.02.25
by	MGN
checked	MGN
print date	08.02.2025

ABOUD & ASSOCIATES INC.
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client
ROHNBRAD INC.
147 WYNDHAM ST. N.
GUELPH ONTARIO

project
PROPOSED INDUSTRIAL BUILDING
81 ROYAL ROAD
GUELPH ONTARIO

drawing title
LANDSCAPE PLAN

reference

project no. 23-046A

site plan no.

sheet no. LP-1

1. Base information sources:
   1.1. Topographic Survey dated May 29, 2023 prepared by Van Harten Surveying Inc.
   1.2. Site Plan dated December 11, 2024 prepared by BJC Architects Inc.
   1.3. Grading and Servicing Plan dated December 2, 2024 prepared by Van Harten Surveying Inc.
   1.4. Tree inventory and assessment conducted by Aboud & Associates Inc. August 14, 2024.
2. All dimensions are in metric unless otherwise noted.
3. Do not scale drawings. Dimensions are to be verified on site by Contractor prior to commencement of the work.
4. These plans shall be read in conjunction with all details, notes, reports, written specifications, general conditions, any supplemental conditions and agreement which form the contract documents.
5. These drawings shall not be used for construction purposes unless noted as “Issued for Construction” and signed by the Landscape Architect or Professional Engineer.
6. Contractor shall review all drawings and verify actual field conditions to determine the total scope of work and all required coordination prior to submission of bids and commencement of the work. Report any discrepancies to the Landscape Architect, for action to the satisfaction of the Owner.
7. Contractor shall locate all underground, at grade and overhead utilities prior to commencement of the work. All utilities not necessarily shown on these drawings. Aboud & Associates assumes no responsibility for the accuracy of any utilities shown in these drawings.
8. Contractor shall perform all work in accordance with the most current Ontario Building Code, Occupational Health and Safety Act and it's regulations, as well as local municipal codes, regulations, and By-laws.
9. Contractor shall identify the location of all internal/external construction access routes, parking and storage of materials in conformance with project erosion and sediment control plans for acceptance by the Owner. Construction, maintenance and removal/restoration of access, parking and storage facilities shall be included in the Contractor's bid price.
10. Contractor shall submit shop drawings where indicated in these drawings. Shop drawings shall be certified by a Professional Engineer licensed to practice in Ontario and reviewed by the contractor for dimensional correlation with the drawings and field conditions. Fabrication of elements on shop drawings shall not proceed until drawings have been reviewed and approved by a Professional Engineer and have been accepted for general design conformance by the Landscape Architect in writing. The cost of preparing shop drawings, as well as the services of a Professional Engineer, shall be included in the Contractor's bid price.
11. Contractor proposed substitution of materials and products shall be submitted in writing for review by Landscape Architect and acceptance by Owner and Municipality.
12. Material quantities on drawings shall take precedent over those in lists and schedules.
13. Where traffic control is necessary, Contractor shall use the guideline of the Construction Safety Association of Ontario, municipal by-laws, the Highway Traffic Act and the Ontario Traffic Manual (Book 7). The cost of preparing, obtaining approvals and implementing traffic control plans shall be included in the Contractor's bid price, unless otherwise noted.
14. Contractor shall erect temporary barriers, as required, to secure the work area. Contractor shall maintain temporary barriers in good repair and remove at the end of the work.
15. Contractor shall provide layout and grade staking, for general review by Landscape Architect and acceptance by Owner.
16. Contractor is responsible for protecting and/or reinstating site elements indicated in these drawings.
17. Contractor is responsible for restoration of adjacent surfaces and existing site elements damaged by the Contractor in the performance of the work, including but not limited to roads, driveways, utilities, buildings, curbs, sidewalks, retaining walls, fencing, turf, flowers and woody vegetation. Restoration work shall be performed by the Contractor at no cost to the Owner and be completed in conformance with applicable Provincial, Municipal or Agency standards and requirements, to the satisfaction of the Owner/Agency of the damaged element.
18. Where new paving or earthwork meets existing, smoothly blend line and grade of existing with new.
19. Contractor or Owner to request in writing [email] Project Landscape Architect general review services at substantial performance of landscape work between May 1st and October 31st. Requests for review after October 31st will be carried out after May 1st the following spring.
20. All work and materials are to be warranteed by the Contractor for twenty-four (24) months from date of initial acceptance of all items by Municipal Staff and Project Landscape Architect.
    20.1. The Contractor shall be retained by the Owner to perform maintenance, as described in these drawings for all the installed trees, shrubs, perennials, turf, and seeding during the warranty period.
    OR
    20.2. The Owner shall provide maintenance themselves or retain a separate Contractor to perform the maintenance as described in these drawings for all installed trees, shrubs, perennials, turf and seeding during the warranty period.
21. Unless identified in warranty maintenance requirements, after substantial performance, it is the Owner's responsibility to inspect and maintain all safety devices, signs, guards, fences, handrails, surfaces, structures, and stormwater drainage system so they may function for their intended use and without harm for all users of the site.

1 LP-2 GENERAL LANDSCAPE NOTES

1. Perform following maintenance operations from time of planting trees, shrubs, and perennials to end of warranty period two (2) years following substantial performance of the work.
   1.1. Water to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion. In a typical loam soil, optimum soil moisture in planting beds at root depth is 65% of field capacity. Guidelines during a typical growing season are as follows:
      1.1.1. Deep root water newly planted plants once per week for the first three weeks, such that the water penetrates to a minimum depth of 300mm.
      1.1.2. Deep root or surface water trees and shrubs a minimum of every ten (10) days between May 15 and September 15.
      1.1.3. Deep root or surface water trees and shrubs a minimum of every twenty-one (21) days between September 15 and freeze up.
      1.1.4. Water evergreen plants thoroughly in late fall prior to freeze-up to saturate soil around root system.
   1.2. Soil moisture to be monitored throughout the growing season:
      1.2.1. Watering schedule to be increased when plant materials are reaching the permanent wilting point.
      1.2.2. Watering schedule to be reduced when a sufficient volume of rainfall has penetrated the soil fully as required.
   1.3. Replace or respread damaged, missing or disturbed mulch.
   1.4. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from Consultant prior to application.
   1.5. Control outbreaks of perennial weeds as directed by Consultant, and annual weeds by mechanical or chemical means utilizing acceptable integrated pest management practices to meet acceptance/success targets
      1.5.1. If chemical means are used, comply with all municipal, provincial, and federal legislation and regulations.
   1.6. Remove dead or broken branches from plant material using clean sharp horticultural tools using current arboricultural practices.
   1.7. Keep trunk protection and guy wires in proper repair and adjustment.
   1.8. Provide adequate protection from winter, wind and rodent damage.
   1.9. Remove and replace dead plants and plants not in healthy growing condition. Make replacements in same manner as specified for original plantings, unless otherwise directed by Consultant.
   1.10. Remove trunk protection, tree supports and level watering saucers at end of warranty period, unless otherwise directed by Consultant.
2. After establishment period is complete and sod is accepted, the Owner shall retain the installing Landscape Contractor, a third-party Landscape Maintenance Contrator, or perform the following maintenance work to end of warranty period two (2) years following substantial performance of the work:
   2.1. Maintenance Level 3 "Moderate" in accordance with the Canadian Landscape Standard. The main objective is a generally neat, moderately groomed appearance, with some tolerance for the effects of “wear and tear,” moderate traffic and natural processes.
   2.2. Mow turf to a height of 75-100mm (3"-4"), Mowing should be performed as necessary to avoid the removal of any more than one third of the grass blade length at any one time.
   2.3. Supplemental watering shall be carried out when required and with sufficient quantities of water to prevent turf and underlying soil from drying out.
   2.4. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from Consultant prior to application.
   2.5. Control outbreaks of perennial weeds and annual weeds by mechanical or chemical means utilizing acceptable integrated pest management practices to meet acceptance/success targets.
   2.6. If chemical means are used, comply with all municipal, provincial, and federal legislation and regulations.
3. Submit monthly written reports in during the growing season (April - September) to Consultant identifying:
   3.4. Maintenance work carried out.
   3.5. Watering method, quantity of water used, water source.
   3.6. General development and condition of plant material.
   3.7. Preventative or corrective measures required which are outside Contractor's responsibility.

2 LP-2 GENERAL LANDSCAPE MAINTENANCE NOTES

1. Plant Characteristics, Rootballs, Rootball Standards including minimum rootball diameters specified on these plans are to be in accordance with the Canadian Nursery Landscape Association Canadian Standards for Nursery Stock, current edition.
2. Planting shall only be performed when weather and soil conditions are suitable for planting the materials specified in accordance with locally accepted practice. Install plant materials during the planting time as described below unless otherwise approved in writing by Landscape Architect. In the event that the Contractor request planting outside the dates of the planting season, approval of the request does not change the requirements of the warranty.
   - April 1 - June 30 and September 1 - October 31
3. Transportation of plants should be restricted to closed vans or trucks covered with mesh tarpaulin or, similar material, to protect the leaves or needles from windburn or desiccation. This may be supplemented by spraying the foliage with an antidesiccant prior to shipping.
4. Plant material shall at no time be dropped or handled roughly.
5. Protect plant material from frost, excessive heat, wind and sun following delivery.
6. Immediately store and protect plant material, which will not be installed within 1 hour after arrival at site in storage location, approved by the Landscape Architect.
7. Protect stored plant material from frost, wind and sun and as follows: For pots and containers, maintain moisture level in containers.
8. For balled and burlapped and wire basket root balls, place to protect branches from damage. Maintain moisture level in root zones.
9. Topsoil or plantings shall not be placed or installed when in a frozen condition, under adverse field conditions such as high wind, frozen soil or soil covered with snow, ice, or standing water.
10. The Landscape Architect and Municipal Staff has the right to reject any and all plant material that does not conform to the requirements of this specification at any time regardless of any previous approval.
11. When a plant has been rejected, immediately remove it from the area of the Work and replace it with a plant of the required species, size and quality at the earliest planting period consistent with these specifications. Replacement plant material shall meet all the requirements of this specification. Rejected plants shall be replaced at no cost to the Owner.
12. Acceptance shall not be given for the planting Work until all plants rejected during the course of the Work are replaced.
13. Any plant that has the following characteristics shall be cause for rejection:
   13.1. Only nursery grown plants will be accepted.
   13.2. Any plant that has a canopy with 25% or more dead or removed limbs.
   13.3. Evidence of damage to plant material, which diminishes the aesthetic character/form, biological integrity, or structural integrity of the plant or group of plants .
   13.4. Evidence of improper digging; inadequate protection following digging; carelessness while in transit; evidence of desiccation or wind-related damage; cold damage; improper handing or storage; root zones that have dried to the point of leaf wilt; cracked, loose, damaged or distorted root balls.
   13.5. Plants with undersized root balls or containers, kinked or girdling roots, matted roots on the top, and edges of the container, excessive surface adventitious roots, root balls and containers with no structural roots in the top 75mm of the soil.
   13.6. Plants balled with synthetic, treated or non-biodegradable fabrics.
   13.7. Any tree that is of a species that characteristically has a dominant central leader, and if the leader is dead or removed, the tree will not have a form consistent with the species.
   13.8. Any tree that has open wounds (not completely healed over) that penetrates the cambium into the wood on trunks or major limbs the removal of which would result in the loss of 25% or more of the structure and form of the tree
14. Topsoil shall be loose, friable, fertile loamy material that is free from subsoil, weeds, roots, vegetation and other deleterious material greater than 25mm diameter in the greatest dimension. The topsoil shall also be certified by an OMAFRA Accredited Soil Testing Laboratory in Ontario to meet the following requirements:
   14.1. Topsoil texture shall be loam, sandy loam to with:
      14.1.1. Sand content between 20-75%
      14.1.2. Silt content between 5-30%
      14.1.3. Clay content between 5-30%
   14.2. Herbicides - No detectable levels
   14.3. Organic Matter content between 4-15%
   14.4. Phosphorus 10-60 (ppm)
   14.5. Potassium 80-259 (ppm)
   14.6. Calcium 1000-4000 (ppm)
   14.7. Magnesium 100-300 (ppm)
   14.8. Chloride <100 (ppm)
   14.9. Sodium <200 (ppm)
   14.10. Sodium Adsorption Ratio <15
   14.11. Shall not have contaminants that adversely affect plant growth.
   14.12. The cost to amend existing on-site topsoil to be reused shall be paid for by the Owner.
   14.13. The cost to amend imported topsoil supplied by the Contractor to meet Agronomist written recommendations shall be paid for by the Contractor.
15. Water shall not have contaminants or impurities that would adversely affect the germination and growth of vegetation.Proposed plants which come over or under any utility shall be relocated by the Contractor for review by the Landscape Architect, to the satisfaction of the utility provider.
16. Mulch shall be shredded hardwood or softwood as specified in the planting details. Free from roots, leaves, twigs, debris, stones, fungus, crabgrass rhizomes, or any material detrimental to plant growth. Material shall be mulching grade, uniform in size and foreign matter. Mulch that has become saturated with water and presents an anaerobic odor shall be rejected.
17. Anti-Desiccant (if used) shall be emulsion type, film-forming agent similar to Dowax by Dow Chemical Company, or Wilt-Pruf by Nursery Specialty Products, Inc., Croton Falls, New York, designed to permit transpiration but retard excessive loss of moisture from plants. Deliver in manufacturer’s fully identified containers and use in accordance with manufacturer’s instructions. Submit manufacturers product data for approval.
18. Contractor to examine the surface grades and soil conditions for any circumstances that might be detrimental to plant growth, such as deposits of construction-related waste or soil contamination, storage of material or equipment, soil compaction or poor drainage. Contractor to examine the grading, verify all elevations, and notify the Landscape Architect in writing of any unsatisfactory conditions.
19. Contractor to inspect each plant after delivery and prior to installation for damage of other characteristics that may cause rejection of the plant.
20. Excavate pits, beds, and trenches with vertical sides and with bottom of excavation slightly raised at center to provide proper drainage. When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify the Consultant before planting. Dispose of subsoil removed from planting excavations. Do not mix with planting soil or use as backfill. Plants to be planted in prepared planting soil may utilize the soil removed from the planting hole as backfill around the root ball.
21. Set edge of the root ball at the elevation of the proposed finish. Consult the grading plan and utilize a builder’s level or transit to determine the grade at the tree grade. For trees on sloped surfaces, set the edge of the root ball at the average grade around the tree. Set the plant plumb and in the location indicated on the plan. The root flare and tree graft, if applicable, shall be visible at the top of the root ball, above the grade. Do not place soil on top of the root ball and remove soil pushed above root flare by mechanical potting/balled & burlapping process during transplantation by the nursery.
22. When set, brace root ball by tamping backfilled soil around the lower portion of the root ball. Place additional backfill around base and sides of ball in 150mm lifts. Work each lift to settle backfill and eliminate voids and air pockets. When excavation is approximately two-thirds full, water thoroughly before placing remainder of backfill. Ropes or strings on top of ball shall be cut and removed. Burlap or cloth wrapping shall be cut and removed from the top of the root ball. The top horizontal ring of support wire baskets shall be cut in four places and the top half of the wire basket folded down into the soil.
23. Where staking is required, caliper trees shall be supported by wooden stakes driven outside the ball in line with the direction of the prevailing wind. Tree tie type and installation method to be per planting detail. Stakes shall be 50mm x 50mm hardwood stakes free of knots and of lengths appropriate to the size plant required for to adequately support the plant.
24. Tree Guard type and installation per planting detail.
25. Maintain all trees and shrubs in a plumb position throughout the warranty period. Straighten all trees including those not staked. Plants to be straightened shall be excavated and the root ball moved to a plumb position, and then re-backfilled. Do not straighten plants by pulling the trunk with guys.
26. Do not apply any fertilizer to plantings during the first year after transplanting, unless soil tests determine that fertilizer or other chemical additives are required. If required, fertilizers shall be applied according to the manufacturer’s instructions and standard horticultural practices.
27. Pruning shall be done with clean, sharp, rust-free tools. Cuts shall be made flush, leaving no stubs as per ANSI A 300 - current edition. No tree paint or sealants shall be used.
28. Dead wood, suckers, and broken and badly bruised branches shall be removed. Do not prune plant material that has been severely damaged due to transit or handling until viewed by the Landscape Architect.
29. Pruning of broken or dead branches shall be done after planting. Form-corrective pruning may occur when tree has hardened until bud-break in the spring. If corrective pruning dates fall outside the construction schedule, it shall remain a punch list (warranty) item. The Contractor shall be responsible for completing this off-season punch list (warranty) item.
30. Mulch top of root balls and planting beds, covering the entire planting bed area. Leaving a mulch free zone at stem/trunk as indicated in planting details.
31. Water each plant on the day of installation to saturate the soil around the roots and wash the soil into the root zone. After the soil has drained, reset any settled plants or grades around the plant, adding soil if required.

3 LP-2 TREE, SHRUB, AND PERENNIAL INSTALLATION NOTES

1. Sod shall be a No. 1 Commercial Grade Turfgrass Nursery Sod, Kentucky Bluegrass/Fine Fescue according to the Classifications and Use of Turfgrass Sod for Ontario.
2. Sod shall be seeded and established in nursery sod fields as a turfgrass sod.
   2.1. Sod shall be uniform in texture, and in good healthy condition with no sign of decay.
   2.2. There shall be no more than 5 broadleaf weeds per 40 m2 of sod and up to 20% non-specified grass seed.
   2.3. Sod shall be of sufficient density that no surface soil is visible. The grass height shall be 30 mm minimum and 70 mm maximum.
3. The soil portion of the sod shall be a good mineral type soil with a thickness of 10 mm minimum and 15 mm maximum.
4. Each sod piece shall be well permeated with roots. Individual sod pieces shall be in such condition so that each may be lifted, rolled, transported, and placed without breaking or tearing and without loss of soil under normal handling conditions.
5. Sod shall contain sufficient moisture to maintain its vitality during transportation and placement.
6. Topsoil shall be loose, friable, fertile loamy material that is free from subsoil, weeds, roots, vegetation and other deleterious material greater than 25mm diameter in the greatest dimension. The topsoil shall also be certified by an OMAFRA Accredited Soil Testing Laboratory in Ontario to meet the following requirements:
   6.1. Topsoil texture shall be loam, sandy loam to with:
      6.1.1. Sand content between 20-75%
      6.1.2. Silt content between 5-30%
      6.1.3. Clay content between 5-30%
   6.2. Herbicides - No detectable levels
   6.3. Organic Matter content between 4-15%
   6.4. Phosphorus 10-60 (ppm)
   6.5. Potassium 80-259 (ppm)
   6.6. Calcium 1000-4000 (ppm)
   6.7. Magnesium 100-300 (ppm)
   6.8. Chloride <100 (ppm)
   6.9. Sodium <200 (ppm)
   6.10. Sodium Adsorption Ratio <15
   6.11. Shall not have contaminants that adversely affect plant growth.
   6.12. The cost to amend existing on-site topsoil to be reused shall be paid for by the Owner.
   6.13. The cost to amend imported topsoil supplied by the Contractor to meet Agronomist written recommendations shall be paid for by the Contractor.
7. Water shall not have contaminants or impurities that would adversely affect the germination and growth of vegetation.
8. Sod shall not be separated from its mineral soil base and not damaged during transportation, handling,and placement.
9. Surface litter and debris shall be removed immediately prior to topsoil or sod placement.
10. Topsoil or sod shall not be placed when in a frozen condition, under adverse field conditions such as high wind, frozen soil or soil covered with snow, ice, or standing water.
11. Topsoil shall be placed, spread and leveled as required to match grades as indincated in the grading drawings prepared by the Project Civil Engineer and to allow for positive drainage away from pathways and structures.
12. Minimum consistent depth for topsoil in areas to be sodded after settlement shall be 200mm deep,
13. At the time of sodding, all surface areas designated for sodding shall be free of erosion and shall have a fine graded uniform surface. The surface shall be uniformly cultivated to a minimum depth of 50 mm and shall not have surface materials greater than 25 mm in size, such as stones and clods and weeds or other unwanted vegetation.
14. Sod shall be placed in locations and as specified in the landscape drawings.
   14.1. Voids shall not be left between the soil portion of the sod and the underlying ground surface.
   14.2. Sod shall be securely placed lengthwise across the face of slopes and parallel to the centreline of ditches.
   14.3. End joints of adjacent sod pieces shall be staggered.
   14.4. The edges of adjacent sod pieces shall be placed tightly against one another without overlapping.
   14.5. Sod shall be countersunk to existing grade level at all edges.
   14.6. Butt joints will be used where new sod blends with existing grass; lap joints will not be permitted.
   14.7. Joints shall be tamped to a uniform surface.
   14.8. Where required, sod should be staked to the grade to avoid movement.
15. Sod shall be maintained by the Contractor as part of base price during the establishment period (30 Days) following completion of placement. During this period, the placed sod shall be kept healthy, actively growing, and green in colour. This requirement shall be suspended during the winter dormant period defined as November 15 to April 15 inclusive. During the establishment period the Contractor will:
   15.1. Install temporary barriers or signage to be maintained where required to protect newly established sod.
   15.2. Water to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion. In a typical loam soil, optimum soil moisture in planting beds at root depth is 65% of field capacity.
   15.3. Mow to a height of 60mm (2.5") when turf reaches height of 80mm (3") at least twice during the establishment period.
   15.4. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from Consultant prior to application.
   15.5. Control outbreaks of perennial weeds and annual weeds by mechanical or chemical means utilizing acceptable integrated pest management practices to meet acceptance/success targets.
   15.4. If chemical means are used, comply with all municipal, provincial, and federal legislation and regulations.

2 LP-2 SOD INSTALLATION AND ESTABLISHMENT NOTES

1. Hydraulic seeding to be installed per OPSS.MUNI 803.
2. Permanent Seed and Annual Nurse Cover Crop Seed Mix composition as indicated in drawing LP-3.
3. No seed fertilizer to be applied (Native Seed Mixes do not require supplementary fertilizer on prepared growing media.
4. Topsoil shall be loose, friable, fertile loamy material that is free from subsoil, weeds, roots, vegetation and other deleterious material greater than 25mm diameter in the greatest dimension. The topsoil shall also be certified by an OMAFRA Accredited Soil Testing Laboratory in Ontario to meet the following requirements:
   4.1. Topsoil texture shall be loam, sandy loam to with:
      4.1.1. Sand content between 20-75%
      4.1.2. Silt content between 5-30%
      4.1.3. Clay content between 5-30%
   4.2. Herbicides - No detectable levels
   4.3. Organic Matter content between 4-15%
   4.4. Phosphorus 10-60 (ppm)
   4.5. Potassium 80-259 (ppm)
   4.6. Calcium 1000-4000 (ppm)
   4.7. Magnesium 100-300 (ppm)
   4.8. Chloride <100 (ppm)
   4.9. Sodium <200 (ppm)
   4.10. Sodium Adsorption Ratio <15
   4.11. Shall not have contaminants that adversely affect plant growth.
   4.12. The cost to amend existing on-site topsoil to be reused shall be paid for by the Owner.
   4.13. The cost to amend imported topsoil supplied by the Contractor to meet Agronomist written recommendations shall be paid for by the Contractor.
5. Hydraulic Seeder: shall be capable of mixing the materials into a homogeneous slurry and maintaining the slurry in a homogeneous state until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the specified area. A hose extension for the hydraulic seeder shall be on site and available for use for areas outside of the range of the gun nozzle. Equipment shall provide constant agitation to prevent seed and slurry from clogging equipment. The seeding equipment shall be calibrated to provide the coverage areas to receive seed indicated in drawing LP-1.
6. Hydraulic Mulch: shall consist of shredded wood or paper fibres or both, and water or a stabilizing emulsion or both. Stabilizing emulsions shall consist of an organic tackifier or an inorganic polymer. Hydraulic mulch shall be capable of dispersing rapidly in water to form a homogeneous slurry. Hydraulic mulch shall be dry, free of weeds and other foreign materials, and shall be supplied in factory sealed packages bearing the manufacturer's label indicating the product name, its mass and content.

5 LP-2 GENERAL HYDRAULIC SEEDING NOTES

No.	REVISIONS	date
02	OFFICIAL PLAN AMENDMENT AND ZONING BY-LAW AMENDMENT	08.02.25
01	ISSUED FOR ZONING AMENDMENT	20.12.24

PROJECT NORTH

TRUE NORTH

scale

drawn: JL

last worked on: 08.02.25 by: MGN

checked: MGN

print date: 08.02.2025

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client
ROHNBRAD INC.
147 WYNDHAM ST. N.
GUELPH ONTARIO

project
PROPOSED INDUSTRIAL BUILDING
81 ROYAL ROAD
GUELPH ONTARIO

drawing title
LANDSCAPE NOTES

reference

project no. 23-046A

site plan no.

sheet no. LP-2

CITY OF GUELPH STANDARD EARLY SUCCESSION MEADOW SEED MIX

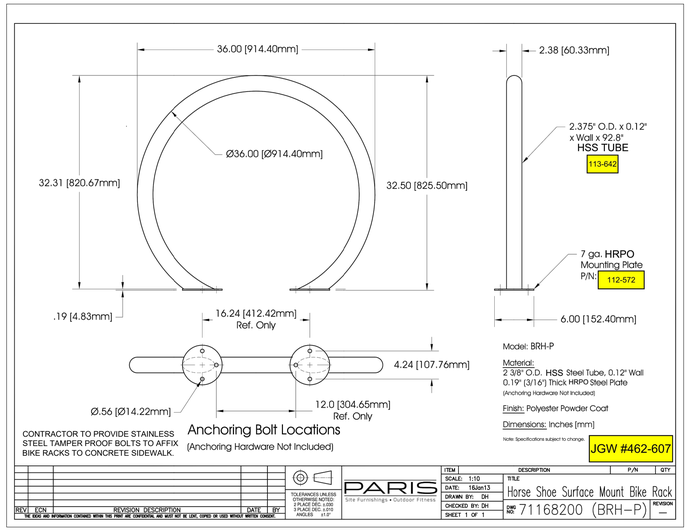
% BY WEIGHT	BOTANICAL NAME	COMMON NAME
20	ANDROPOGON GERARRDI	BIG BLUESTEM
8	COREOPSIS LANCEOLATA	LANCE-LEAVED COREOPSIS
25	ELYMUS VIRGINICUS	VIRGINIA WILD RYE
2	MONARDA FISTULOSA	WILD BERGAMONT
25	PANICUM VIRGATUM	SWITCH GRASS
5	PENTSTEMON DIGITALIS	FOXGLOVE/BEARDTONGUE
11	RUDBECKIA HIRTA	BLACK EYED SUSAN
2	SYMPHYOTRICHUM NOVAE-ANGLAIE	NEW ENGLAND ASTER
2	SYMPHYOTRICHUM SAGGITIFOLIUS	ARROW LEAVED ASTER
SEEDING RATE = 25 KG / HECTARE		

NURSE CROP (IF SEEDING IN SPRING/ EARLY-SUMMER)

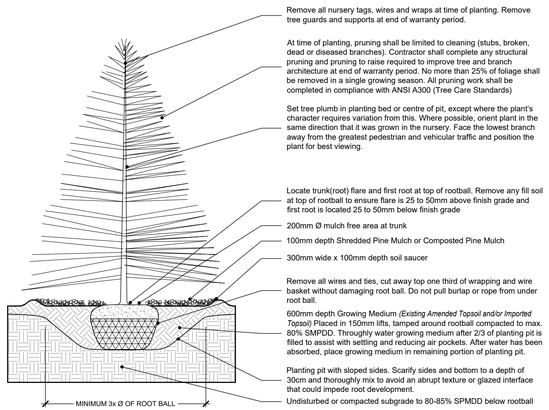
% BY WEIGHT	BOTANICAL NAME	COMMON NAME
50	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
25	AVENA SATIVA	OATS
25	FAGOPYRUM ESCULENTUM	BUCKWHEAT
SEEDING RATE = 25 KG / HECTARE		

NURSE CROP (IF SEEDING IN LATE-SUMMER/FALL)

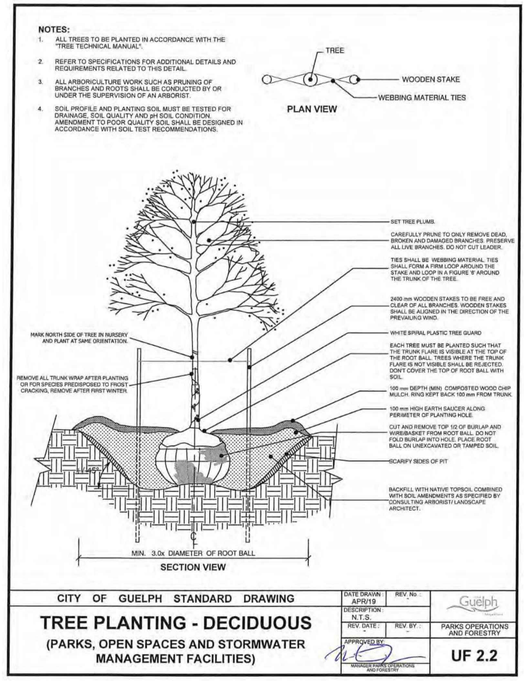
% BY WEIGHT	BOTANICAL NAME	COMMON NAME
50	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
50	TRITICUM AESTIVUM	WINTER WHEAT
SEEDING RATE = 25 KG / HECTARE		



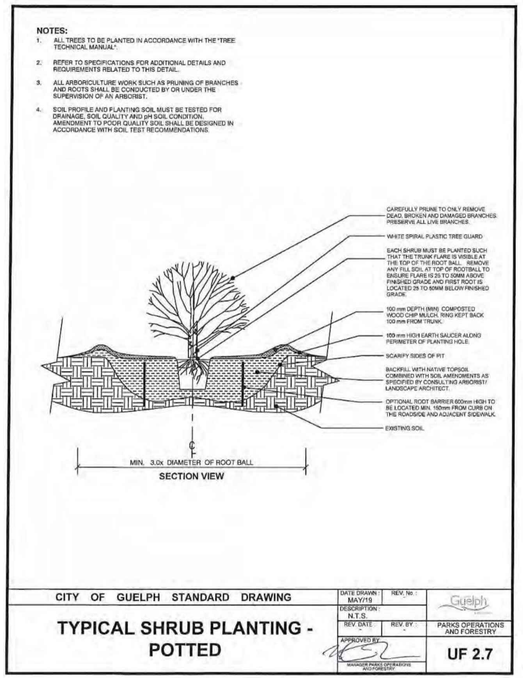
1 LP-3 HORSE SHOE SURFACE MOUNT BIKE RACK
N.T.S.



2 LP-3 TYPICAL CONIFEROUS TREE PLANTING DETAIL
N.T.S.



3 LP-3 TYPICAL DECIDUOUS TREE PLANTING DETAIL
N.T.S.



4 LP-3 TYPICAL SHRUB PLANTING DETAIL - CONTINUOUS MULCHED BED
N.T.S.

No.	REVISIONS	date
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PROJECT NORTH
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sheet no. LP-3