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08/29/2018

File Number: 2017-0608

Mr. Daniel McMillan
Porsche Orland Park
8760 West 159th Street
Orland Park, IL 60462

Re: Final Landscape Plan Approval – Rizza Porsche of Orland Park

Dear Mr. McMillan:

The revised final landscape plan for Rizza Porsche of Orland Park has been reviewed for compliance with Section 6-305 Landscape and Tree Preservation of the Village's Land Development Code (LDC). The landscape plan, titled "Rizza Porsche - Final Landscape Plan" prepared by Gary R. Weber Associates, Inc., dated 11/04/2016, with a final revision date of 08/27/2018, Sheets 1 and 2, was approved by the Development Services Department on August 29, 2018. The approved landscape plan is attached to this letter for your reference.

All landscaping for this project shall be installed by June 1, 2019. As per Section 5-112.E.9.e.3 of the LDC, the landscaping for this project will be inspected on at least four (4) separate occasions for compliance with the aforementioned landscape plan. The developer or property owner shall contact the Development Services Department to schedule all landscape inspections. No letter of credit release shall be issued until a final landscape inspection approval has been granted by the Development Services Department.

The plantings in any landscaped area must be properly maintained in order for the landscaped area to fulfill the purposes for which it was established. The obligation for continuous landscape maintenance is binding on the petitioner who received landscape plan approval, to any subsequent property owner(s) or any other parties having a controlling interest in the property.

The following inspections are required for this project*:

- Landscape Installation Inspection
- Year 1 Inspection (Site Landscaping and Basins)
- Year 2 Inspection (Basins)
- Year 3 Inspection (Basins)

* Additional inspections may be required if inspections reveal landscape deficiencies.

Thank you and please contact me directly to schedule all landscape inspections or with any questions.

Sincerely,



Mike Mazza, ASLA

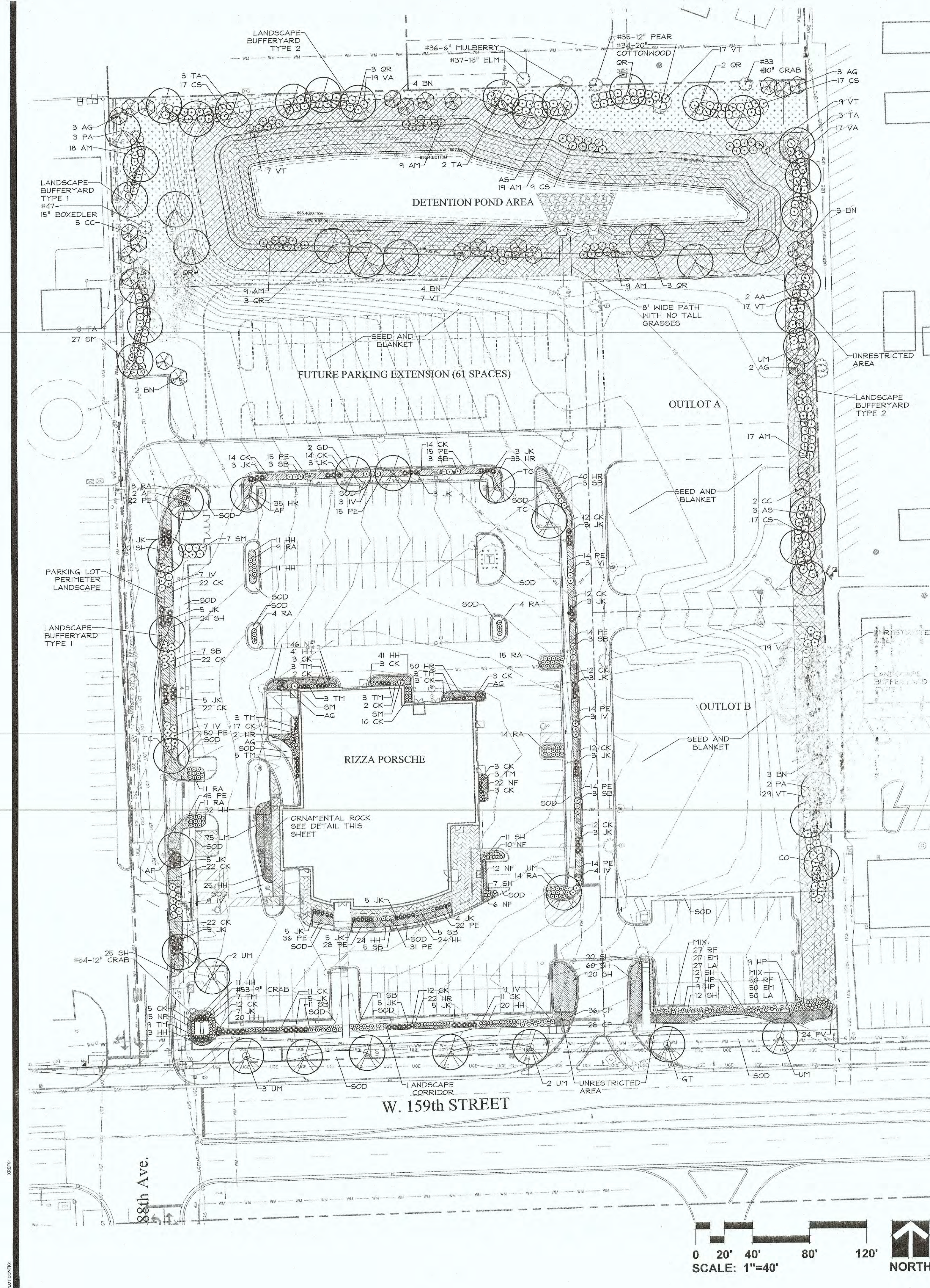
Planner | Development Services | 14700 Ravinia Avenue | Orland Park, IL 60462 | 708-403-6119 | mmazza@orlandpark.org
ISA Certified Arborist #IL-9579A

Cc:

Ed Lelo, Sean Marquez, Loy Lee – Village of Orland Park

Carl M. Peterson, Gage Berger - Gary R. Weber Associates, Inc.

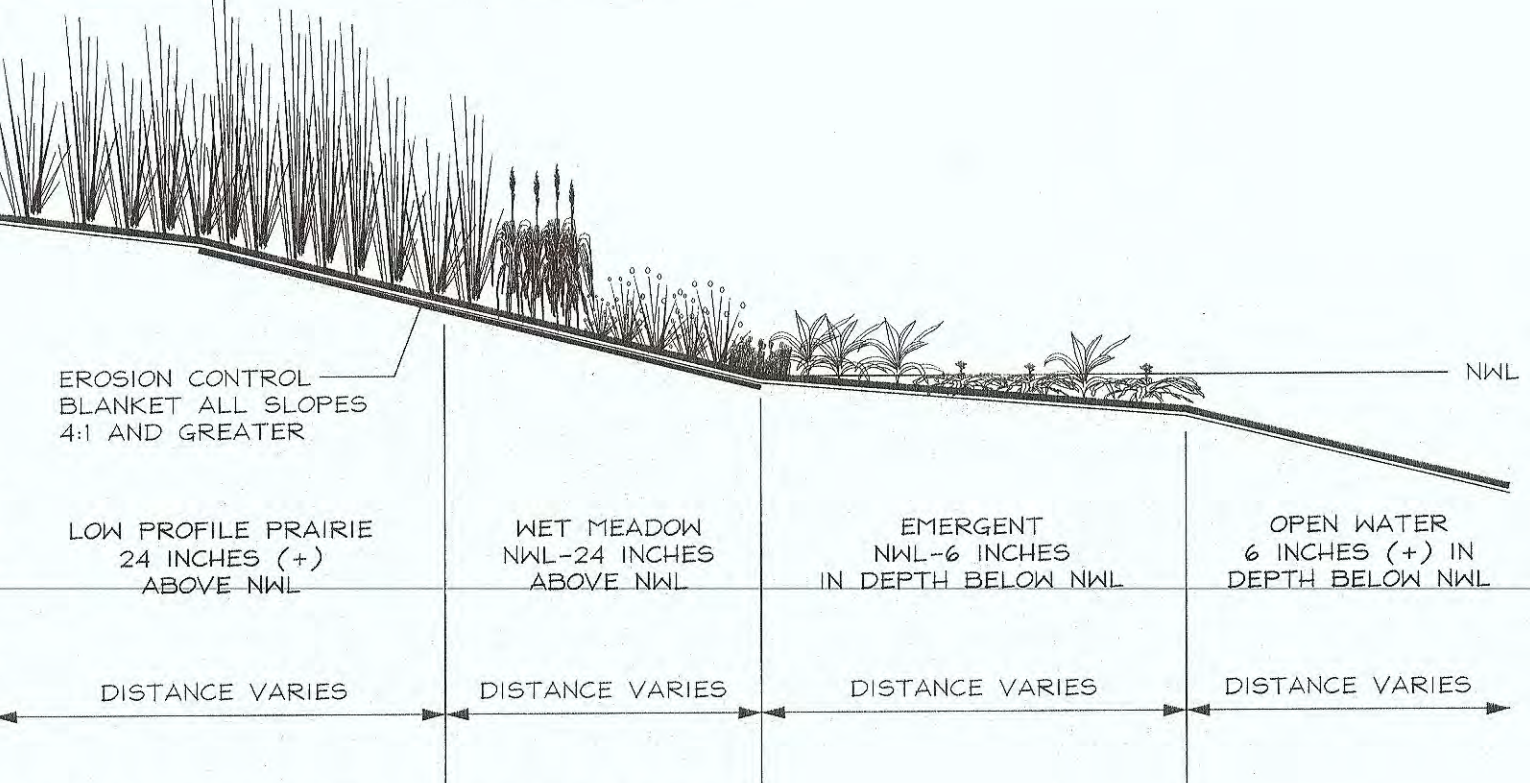
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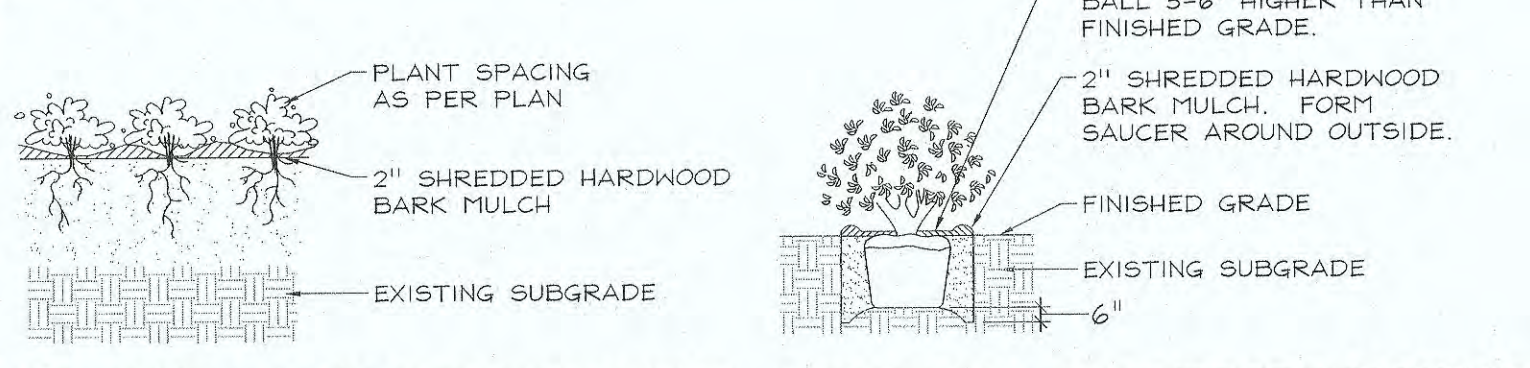
LEGEND

Key	Description
[Pattern]	EMERGENT SEED & PLUGS - 0.03 AC
[Pattern]	WET MEADOW SEED MIX - 0.1 AC
[Pattern]	LOW PROFILE PRAIRIE SEED MIX - 0.9 AC
[Pattern]	LOW MOW FESCUE MIX - 0.36 AC

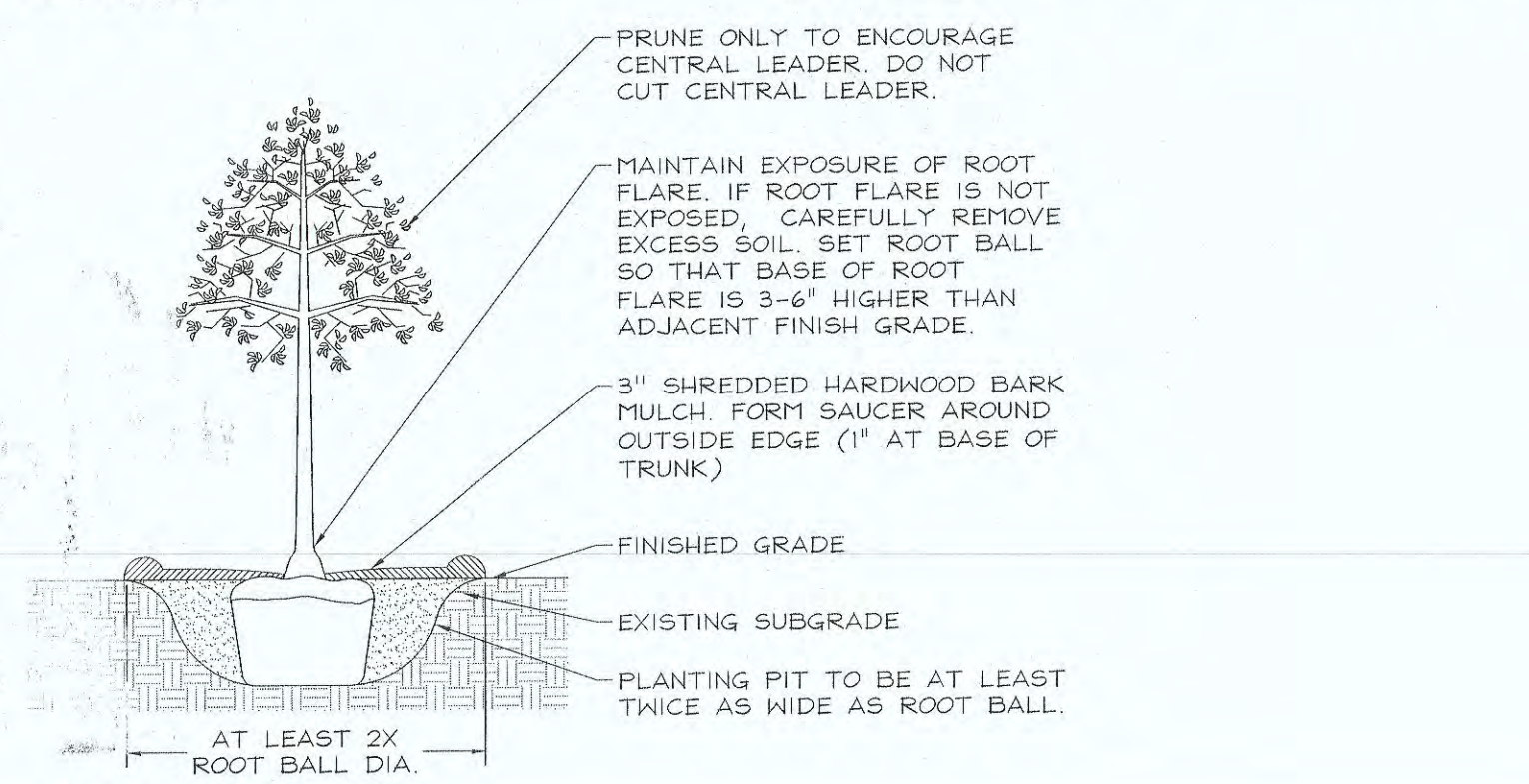
PLANTING DETAILS



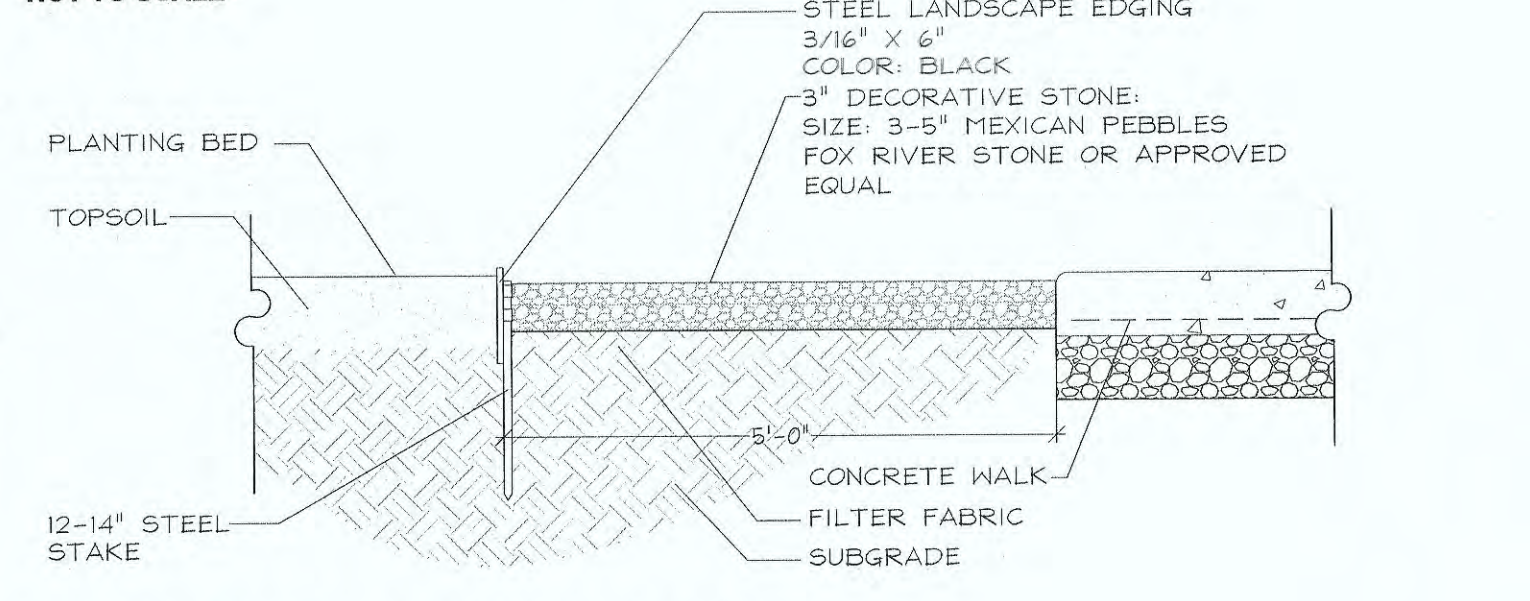
PLANT COMMUNITY SECTION NOT TO SCALE



PERENNIALS AND GROUNDCOVERS NOT TO SCALE



DECIDUOUS TREES NOT TO SCALE



ORNAMENTAL ROCK DETAIL NOT TO SCALE

GENERAL NOTES

- Contractor shall verify underground utility lines and is responsible for any damage.
- Contractor shall verify all existing conditions in the field prior to construction and shall notify landscape architect of any variance.
- The Contractor is responsible for protecting all existing vegetation to be preserved.
- All shade/overstory trees shall have a central leader.
- Material quantities shown are for contractors convenience only. The Contractor must verify all material and supply sufficient materials to complete the job per plan.
- The landscape architect reserves the right to inspect trees and shrubs either at place of growth or at site before planting, for compliance with requirements of variety, size and quality.
- The Village may reject any materials that are diseased, deformed, or otherwise not exhibiting superior quality.
- Work shall conform to American Standard for Nursery Stock, State of Illinois Horticultural Standards, and Local Municipal requirements.
- Contractor shall secure and pay for all permits, fees, and inspections necessary for the proper execution of this work and comply with all codes applicable to this work.
- See General Conditions and Specifications for landscape work for additional requirements.

PLANT LIST

Key	Qty.	Botanical/Common Name	Size	Remarks
SHADE TREES				
AA	4	Acer x freemanii 'Marmo'	4" Cal.	
AF	4	Acer x freemanii 'Jeffers Red'	4" Cal.	
AS	4	Acer saccharum	4" Cal.	
CO	1	Celtis occidentalis	4" Cal.	
GT	1	Gleditsia triacanthos var. inermis 'Skyline'	4" Cal.	
GD	2	Gymnocladus dioica 'Espresso-JFS'	4" Cal.	seedless
PA	5	Platanus acerifolia 'Morton Circle'	4" Cal.	
GR	14	Quercus rubra	4" Cal.	
TA	11	Tilia americana 'Redmond'	4" Cal.	
TC	4	Tilia cordata 'Greenspire'	4" Cal.	
UM	10	Ulmus 'Morton Glossy'	4" Cal.	
ORNAMENTAL TREES				
AG	11	Amelanchier canadensis	6' Tall	Clump Form
BN	16	Betula nigra	6' Tall	Multi Stem
CC	7	Cercis canadensis	6' Tall	Clump Form
DECIDUOUS SHRUBS				
AM	81	Aronia melanocarpa	5 Gal./36" Tall	4' O.C.
CS	60	Cornus sericea	5 Gal./36" Tall	4' O.C.
HP	25	Hypericum perforatum	5 Gal./24" Tall	3' O.C.
IV	47	Itea virginica 'Sprich'	5 Gal./24" Tall	3' O.C.
RA	90	Rhus aromatica 'Gro-low'	5 Gal./24" Wide	4' O.C.
SB	54	Spiraea betulifolia 'Tor'	5 Gal./24" Tall	3' O.C.
SM	36	Syringa meyeri 'Palatin'	5 Gal./30" Tall	4' O.C.
VA	55	Viburnum acerifolium	5 Gal./36" Tall	4' O.C.
VT	86	Viburnum trilobum	5 Gal./36" Tall	4' O.C.
EVERGREEN SHRUBS				
JK	95	Juniperus chinensis 'Kallaya Compact'	5 Gal./24" Wide	4' O.C.
TM	39	Taxus x media 'Densiformis'	5 Gal./24" Wide	4' O.C.
PERENNIALS AND ORNAMENTAL GRASSES				
CP	64	Coreopsis palmata	#1	18" O.C.
CK	312	Calamagrostis x acutiflora 'Karl Foerster'	#1	24" O.C.
EM	77	Echinacea purpurea 'Magnus'	#1	18" O.C.
HH	273	Hemerocallis 'Happy Returns'	#1	18" O.C.
HR	225	Hemerocallis 'Rosy Returns'	#1	18" O.C.
LA	77	Liatris aspera	#1	18" O.C.
LM	75	Lilium muscarum 'Variegata'	#1	18" O.C.
NF	111	Nepeta faassenii 'Cat's Meow'	#1	18" O.C.
PV	24	Panicum virgatum	#1	24" O.C.
PE	349	Pennisetum alopecuroides 'Hameln'	#1	18" O.C.
RF	77	Rudbeckia fulgida var. speciosa	#1	18" O.C.
SH	311	Sporobolus heterolepis	#1	18" O.C.
MISC. MATERIALS				
145		SHREDDED HARDWOOD BARK MULCH		
1,330		SOD		
210		SEED AND BLANKET		
1.7		ORNAMENTAL ROCK		
47.5		STEEL EDGING		

LANDSCAPE DATA	
TOTAL LOT AREA:	332,770 S.F. (7.64 AC.)
TOTAL LANDSCAPE AREA:	190,355 S.F. (57.2%)
LANDSCAPE ISLANDS:	
TOTAL LANDSCAPE ISLANDS:	18 (6,883 S.F.)
TOTAL PARKING STALLS:	206 (33,188 S.F.)
REQUIRED BUFFERYARD/CORRIDOR TYPES:	
LANDSCAPE CORRIDOR - AUTO-ROW TYPE	
LANDSCAPE BUFFERYARD TYPE 1 / 2	
REPLACEMENT TREES REQUIRED: 70 at 2.5" CAL. (SEE TREE PRESERVATION PLAN PREPARED BY W.T. CIVIL ENGINEERING)	
REPLACEMENT TREES PROVIDED: 35 at 4" CAL.	

LANDSCAPE PLAN APPROVAL	
THIS LANDSCAPE PLAN HAS BEEN REVIEWED FOR COMPLIANCE WITH SECTION 6.305 OF THE VILLAGE OF ORLAND PARK'S LAND DEVELOPMENT CODE	
ADDITIONAL APPROVAL INCLUDES:	
FILE #	2017-0408
APPROVAL DATE:	08/29/16

LANDSCAPE INSPECTIONS REQUIRED	
THIS PROJECT WILL BE INSPECTED FOR COMPLIANCE WITH THE APPROVED LANDSCAPE PLAN ON FILE WITH THE VILLAGE OF ORLAND PARK	
THE FOLLOWING INSPECTIONS ARE REQUIRED:	
INSTALLATION / YEAR 1 / YEAR 2 / YEAR 3	
Additional Inspections May Be Required	
FILE #	2017-0408

REVISIONS	
DATE	11/04/16
PROJECT NO.	WTE1604
DRAWN	TRC
CHECKED	JCT
SHEET NO.	

LANDSCAPE WORK PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

The work shall consist of furnishing, transporting and installing all seeds, plants and other materials required for:

- The establishment of trees, shrubs, perennial, annual and lawn areas as shown on Landscape Plan.
- The provision of post-planting management as specified herein.
- Any remedial operations necessary in conformance with the plans as specified in this document.
- Permits which may be required.

1.2 QUALITY ASSURANCE

- A. Work shall conform to State of Illinois Horticultural Standards and local municipal requirements.

B. Quality Control Procedures:

- Ship landscape materials with certificates of inspection as required by governmental authorities. Comply with governing regulations applicable to landscape materials.
- Do not make substitutions. If specified landscape material is not obtainable, submit to Landscape Architect proof of non-availability and proposal for use of equivalent material.
- Analysis and Standards: Package standard products with manufacturer's certified analysis.

1.3 SUBMITTALS

A. Planting Schedule

Submit three (3) copies of the proposed planting schedule showing dates for each type of planting.

B. Maintenance Instruction - Landscape Work

Submit two (2) copies of typewritten instructions recommending procedures to be established by the Owner for the maintenance of landscape work for one full year. Submit prior to expiration of required maintenance periods.

Instructions shall include: watering, fertilizing, spraying, mulching and pruning for plant material and trimming groundcover. Instructions for watering, fertilizing and mowing grass areas shall be provided ten (10) days prior to request-for-inspection-for-final-acceptance. Landscape Architect shall receive copies of all instructions when issued.

- C. Submit two (2) copies of soil test of existing topsoil with recommendations for soil additive requirement to Landscape Architect for review and written approval.

- D. Submit two (2) samples of shredded hardwood bark mulch, erosion control blankets, and all other products and materials as specified on plans to Landscape Architect for review and written approval.

- E. Nursery packing lists indicating the species and quantities of material installed must be provided to the Owner and/or City upon request.

1.4 JOB CONDITIONS

- A. Examine and evaluate grades, soils and water levels. Observe the conditions under which work is to be performed and notify Landscape Architect of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

- B. Utilities: Review underground utility location maps and plans, notify local utility location services; demonstrate locations of utility locations; and certify acceptance of liability for the protection of utilities during course of work. Contractor shall be responsible for any damage to utilities or property.

- C. Excavation: When conditions detrimental to plant growth are encountered such as rubble fill, adverse drainage conditions or obstructions, notify Landscape Architect before planting.

1.5 GUARANTEES

- A. Guarantee seeded and soded areas through the specified maintenance period and until final acceptance.

- B. Guarantee trees, shrubs, groundcover and perennials for a period of one year after date of acceptance against defects including death and unsatisfactory growth, except for defects resulting from neglect by Owner, abuse or damage by others or unusual phenomena or incidents which are beyond Landscape Installer's control.

- C. Native Planting Area Performance Criteria

1st Full Growing Season: 90% of cover crop shall be established. There shall be no bare areas greater than two (2) square feet in seeded areas. At least 25% of vegetation coverage shall be native, non-invasive species. At least 50% of the emergent species, if planted as plugs shall be alive and apparent.

2nd Full Growing Season: All areas with the exception of emergent zones shall exhibit full vegetative cover. At least 80% of the vegetation coverage shall be native, non-invasive species.

3rd Full Growing Season: At least 75% of vegetation coverage shall be native, non-invasive species. Non-native species of utility locations; and certify acceptance of liability for the protection of utilities during course of work. Contractor shall be responsible for any damage to utilities or property.

LANDSCAPE WORK PART 2 - PLANT MATERIALS

2.1 LAWN SOD

Provide strongly rooted sod, not less than two (2) years old and free of weeds and undesirable native grasses. Provide only sod capable of growth and development when planted (viable, not dormant) and in strips not more than 18" wide x 4' long. Provide sod composed of a 5-way blend of Kentucky Bluegrass such as Midnight, Alliance, Vivo, Washington Liberty.

2.2 LAWN SEED MIXTURE

Grass Seed: Provide fresh, clean, new crop seed complying with the tolerance for purity and germination established by the Official Seed Analysts of North America. Provide seed of the grass species, proportions and maximum percentage of weed seed, as specified.

- A. Lawn Seed Mixture - 5 lbs./1,000 sq. ft.

50% Kentucky Bluegrass 98/85
15% Cutler Perennial Ryegrass
10% Spartan Hard Fescue
10% Edge Perennial Ryegrass
10% Express Perennial Ryegrass
5% Pennlawn Creeping Red Fescue

- B. Temporary Lawn Seed Mixture - 5 lbs./1,000 sq.ft.

40% Kentucky Bluegrass 98/85
40% Perennial Ryegrass
20% Annual Ryegrass

- C. Low Mow Fescue Seed Mix

Common Name	lbs./AC
Discovery Hard Fescue	75,000
Thifty Chealings Fescue	75,000
Florentine Creeping Red Fescue	75,000
Bighorn Sheeps Fescue	75,000
Total:	300,000

2.3 NATIVE PLANTING MIXTURES

Provide fresh, clean, new crop of the species and proportions as specified. Native seed and live plant material shall be obtained from a reputable supplier (approved by Landscape Architect) that has collected from sources east of the Mississippi River within the same EPA Level III Ecoregion as the project site (Central Corn Belt Plains). Any material sourced from outside this ecoregion must be approved by the Landscape Architect prior to installation.

It is the sole responsibility of the Native Landscape Contractor to provide approved seed that meets industry-standard PLS requirements.

- A. Temporary Cover Grass

Cover crops shall be installed in all planting areas containing dry mesic, mesic, and wet mesic soils to, stabilize soils, and combat weed pressure during the germination and establishment of the native seeding area.

For spring plantings use Seed Oats at the specified rate below:

Botanical Name	Common Name	lbs./AC
Avena sativa	Seed Oats	30.0 lbs.

For fall or dormant plantings, use Regreen at the specified rates below:

Botanical Name	Common Name	lbs./AC
Trisetum aestivum	Regreen	10.0 lb

B. Emergent Plantings - Stormwater Basin Bottoms in areas with 6" water depth

Botanical Name	Common Name	lbs./AC	Plugs/AC
Acorus calamus	Sweet Flag	0.500	494
Alisma subcordatum	Water Plantain	1.250	
Eleocharis obtusa	Blunt Spike Rush	0.375	
Eleocharis palustris	Marsh Spike Rush	0.375	
Glyceria grandis	Reed Nanna Grass	0.375	
Hibiscus laevis	Rose Mallow	0.250	
Iris virginica shrevei	Blue Flag	0.500	494
Juncus effusus	Common Rush	0.500	
Laersia Oryzoides	Rice Cut Grass	1.250	494
Pontederia Cordata	Pickersweeed	0.250	494
Sagittaria latifolia	Common Arrowhead	1.250	494
Scirpus acutus	Hardstem Bulrush	0.250	988
Scirpus purpureus	Charmmakers Rush	0.250	988
Scirpus validus	Great Bulrush	0.250	988
Sparganium eurycarpum	Bur Reed	1.000	988
Total:		8.125	5434

Note: If emergent zone is permanently flooded seeding will be impossible and live plugs shall be installed at the specified rate. Plugs are specified at a standard 38 cell flat and shall measure 2.25" x 5" with a volume of 11.50 inches. Substitution of plug size must be approved by the Landscape Architect prior to installation.

C. Wet Meadow Seed Mixture - Lower slopes of basin

Botanical Name	Common Name	lbs./AC
Grasses and Sedges		
Carex bebbii	Bebbs Oval Sedge	0.250
Carex bicknellii	Bicknells Sedge	0.125
Carex brevior	Plains Oval Sedge	0.125
Carex cristatella	Crested Oval Sedge	0.060
Carex molestia	Field Oval Sedge	0.250
Carex normalis	Spreading Oval Sedge	0.015
Carex scorparia	Pointed Broom Sedge	0.190
Carex stipata	Common Fox Sedge	0.250
Carex vulpinoidea	Brown Fox Sedge	0.060
Elymus virginicus	Virginia Wild Rye	3.000
Glyceria striata	Fowl manna grass	0.130
Juncus dudleyi	Dudleys Rush	0.020
Juncus torreyi	Torneys Rush	0.031
Panicum virgatum	Sulatch Grass	3.000
Scirpus atrovirens	Dark Green Rush	0.060
Scirpus cyperinus	Wool Grass	0.030
Total Grasses and Sedges:		8.036

Wildflowers/Broadleaves

Alscepias incarnata	Swamp Milkweed	0.125
Bidens cernua	Nodding Bur Marigold	0.190
Boltonia asteroides	False Aster	0.031
Chamaecrista fasciculata	Partridge pea	0.060
Euthamia graminifolia	Grass-leaved Goldenrod	0.300
Eupatorium perfoliatum	Common Boneset	0.015
Helianthus autumnale	Sneezeweed	0.063
Iris virginica shrevei	Blue Flag	1.000
Loebelia siphilitica	Great Blue Lobelia	0.031
Mimulus ringens	Monkey Flower	0.031
Symphoricarichum novae-angliae	New England Aster	0.250
Pycnanthemum virginianum	Common Mountain Mint	0.063
Rudbeckia fulgida var.silvatica	Shouy Black-Eyed Susan	0.250
Zizia aurea	Golden Alexanders	0.500
Total Wildflowers/Broadleaves:		3.037
Total Wet Meadow Seed Mixture:		11.073

D. Low Profile Prairie With Flowers Seed Mixture - Upper Basin Slopes

Botanical Name	Common Name	lbs./AC
Grasses		
Bouteloua curtipendula	Side Oats Grama	8.000
Panicum virgatum	Prairie Sulatch Grass	0.125
Elymus trachycaulis	Slender Wheatgrass	2.000
Elymus canadensis	Prairie Wild Rye	1.000
Schizachyrium scoparium	Little Blue Stem	6.000
Total Grasses:		17.125

Wildflowers/Broadleaves

Allium cernuum	Nodding Wild Onion	0.190
Amorpha canescens	Lead Plant	0.125
Asclepias tuberosa	Butterflyweed	0.500
Asclepias canadensis	Whorled Milkweed	0.063
Astragalus canadensis	Canada Milk Vetch	0.063
Coreopsis palmata	Prairie Coreopsis	0.025
Echinacea pallida	Pale Purple Coneflower	1.000
Echinacea purpurea	Purple Coneflower	0.500
Eryngium yuccifolium	Rattlesnake Master	0.125
Lespedeza capitata	Round-Headed Bush Clover	0.125
Liatris aspera	Rough Blazing Star	0.250
Liatris pycnostachya	Prairie Blazing Star	0.188
Monarda fistulosa	Prairie Bergamont	0.063
Parthenium integrifolium	Wild Quinine	0.016
Penstemon digitalis	Foxglove Beardtongue	0.125
Petalostemum candidum	White Prairie Clover	0.125
Petalostemum purpureum	Purple Prairie Clover	0.156
Potentilla arguta	Prairie Cinquefoil	0.031
Pycnanthemum tenuifolium	Slender Mt. Mint	0.031
Ratibida pinnata	Yellow Coneflower	0.125
Rudbeckia fulgida var.silvatica	Shouy Black-Eyed Susan	0.500
Rudbeckia hirta	Black-Eyed Susan	0.063
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	0.063
Symphoricarichum laeve	Smooth Blue Aster	0.063
Tradescantia ohioensis	Spiderwort	0.125
Verbena stricta	Hoary Vervain	0.125
Zizia aurea	Golden Alexanders	0.500
Total Wildflowers/Broadleaves:		4.051
Total Lo Pro Prairie Seed Mixture:		21.176

2.4 GROUNDCOVERS, PERENNIALS AND ANNUALS

Provide plants established and well-rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for the pot size shown or listed.

2.5 TREES AND SHRUBS

- A. Name and Variety: Provide nursery grown plant material true to name and variety.

- B. Quality: Provide trees, shrubs and other plants complying with the recommendations and requirements of ANSI Z60.1 "Standard for Nursery Stock" and as further specified.

- C. Deciduous Trees: Provide trees of height and caliper listed or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed. Provide balled and burlapped (BBB) deciduous trees.

- D. Deciduous Shrubs: Provide shrubs of the height shown or listed and with not less than the minimum number of canes required by ANSI Z60.1 for the type and height of shrub required. Provide balled and burlapped (BBB) deciduous shrubs.

- E. Coniferous Evergreen: Provide evergreens of the sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types. Provide quality evergreens with well-balanced form complying with requirements for other size relationships to the primary dimension shown. Provide balled and burlapped (BBB) evergreen trees and containerized shrubs.

- F. Inspection: All plants shall be subject to inspection and review at the place of growth or upon delivery and conformity to specification requirements as to quality, right of inspection and rejection upon delivery at the site or during the progress of the work for size and condition of balls or roots, diseases, insects and latent defects or injuries. Rejected plants shall be removed immediately from the site.

2.6 PLANTING SOIL MIXTURE

Provide planting soil mixture consisting of clean uncompacted topsoil (stockpiled at site) for all planting pits, perennial, annual and groundcover areas. Topsoil shall be conditioned based on any recommendations resulting from the soil test in 1.3.C.

2.7 EROSION CONTROL

- A. Lawn Seed and Native Areas Erosion Control Blanket: Futerra EnviroNet color: Green, or equivalent approved equal. To be installed per manufacturer's recommendations.

- B. Shoreline Erosion Control Blanket: North American Green SG150, or equivalent approved equal. To be installed per manufacturer's recommendations.

2.8 MULCH

Provide mulch consisting of shredded hardwood. Provide sample to Landscape Architect for approval prior to ordering materials.

LANDSCAPE WORK PART 3 - EXECUTION

3.1 PLANTING SCHEDULE

At least thirty (30) days prior to the beginning of work in each area, submit a planting schedule for approval by the Landscape Architect.

3.2 PLANTINGS

A. Sodding New Lawns

- Remove existing grass, vegetation and turf. Dispose of such material legally off-site; do not turn over into soil being prepared for lawns.

- Till to a depth of not less than 6", apply soil amendments as needed; remove high areas and fill in depressions; till soil to a homogenous mixture of fine texture; remove lumps, clods, stones over 1" diameter, roots and other extraneous matter. Dispose of such material legally off-site.

- Sodded areas shall receive an application of commercial fertilizer at the rate of 10 lbs. per 1,000 sq. ft. and shall have an analysis of 16-8-8.

- Lay sod within 24 hours from time of stripping.

- Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Work from boards to avoid damage to subgrade or sod. Tamp or roll lightly to ensure contact with subgrade. Mark sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass.

- Water sod thoroughly with a fine spray immediately after planting.

B. Seeding New Lawns

- Remove existing grass, vegetation and turf. Dispose of such material legally off-site. Do not turn over into soil being prepared for lawns.

- Till to a depth of not less than 6", apply soil amendments; remove high areas and fill in depressions; till soil to a homogenous mixture of fine texture; remove lumps, clods, stones over 1" diameter, roots and other extraneous matter. Dispose of such material legally off-site.

- Seeded lawn areas shall receive an application of commercial fertilizer at the rate of 5 lbs. per 1,000 sq. ft. and shall be 6-24-24. Fertilizer shall be uniformly spread and mixed into the soil to a depth of 1" inches.

- Do not use wet seed or seed which is moldy or otherwise damaged in transit or storage.

- Sow seed using a spreader or seeding machine. Do not seed when wind velocity exceeds five (5) miles per hour. Distribute seed evenly over entire area by sowing equal quantity in two directions at right angles to each other.

- Sow not less than specified rate.

- Rake lawn seed lightly into top 1" of soil, roll lightly and water with a fine spray.

- After the seeding operation is completed, spray a wood fiber mulch (Canweb 2000 with fertilizer or approved equal) over the entire grassed area at the rate of 2,000 lbs. per acre. Use a mechanical spray unit to insure uniform coverage. Exercise care to protect buildings, automobiles and people during the application of the mulch.

C. Seeding Native Areas

- The period for planting prairie seed shall be from April 1 to June 15 or September 15 to just before the first frost. Seeding outside of these timeframes must be approved by the landscape architect.

- The General Contractor and Native Landscape Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seeded prior to seeding. All areas must be properly prepared before seeding begins. Equipment having low unit pressure ground contact shall be utilized within the planting areas.

- If present, compacted soils shall be disked or raked prior to seeding. Remedial measures for the access area may, at the direction of the Wetland Consultant, involve ripping from 12 to 18 inches of the soil horizon prior to disk.

- Prior to seeding, planting areas shall have at least twelve inches of clean un-compacted topsoil. Clumps, clods, stones over 2" diameter, roots and other extraneous matter shall be removed and disposed of legally off-site.

- Granular mycorrhizal inoculants shall be installed with the seed mix at a rate of 40lbs/ acre. Inoculant can be banded under seed, worked into seed or added into spray tanks. Native areas shall not receive fertilizer.

- Contractor shall be solely responsible for the proper handling and storage of the seed according to the best seed handling and storage practices, including fungicide treatments and stratification considerations. Owner shall make no compensation for damage to the seed because of improper storage, cleaning, threshing, or screening operations.

- Except where site conditions preclude their use, seeding shall be performed using a Truax drill, Truax Trillion seeder, or comparable equipment designed specifically for installation of native seed. For areas where site conditions preclude the use of specialized equipment, seed may be installed through hand broadcasting and followed by light raking. Hand broadcast seed shall be spread at twice the specified rate. Other methods of seed installation may be used with prior approval from the Landscape Architect.

- Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. In general, the optimum seeding depth is 0.25 inch below the soil surface. Areas where the seed has not been incorporated into the soil to the proper depth will not be accepted, and no compensation for materials or labor for the rejected work will be made by the Owner.

- Seeding and soil tracking/firming shall not be done during periods of rain, severe drought, high winds, excessive moisture, frozen ground, or other conditions that preclude satisfactory results.

- Wet mesic and emergent areas shall be planted, and seed allowed to germinate (if possible), prior to flooding with significant amounts of water. Any areas of significant permanent water located within the planting area will receive live plugs in lieu of seed.

- After the seeding operation is completed, install erosion control blanket per manufacturer's specifications.

- Emergent plugs shall be planted in natural groupings within designed areas containing saturated soils or shallow inundation. Plants within groupings shall be planted at 2 foot centers.

- Emergent plugs shall not be planted less than the specified rate and shall be protected with goose enclosures surrounding all natural groupings of plugs.

E. Groundcover and Perennial Beds

Groundcover, perennials, and annuals shall be planted in continuous beds of planting soil mixture a minimum of 8" deep. Install per spacing indicated on plan.

F. Trees and Shrubs

- Set balled and burlapped (BBB) stock plumb and in center of pit or trench with top of ball at an elevation that will keep the root flare exposed upon backfill and mulching. Remove burlap from top and sides of balls; retain on bottoms. When set, place additional topsoil backfill around base and sides of ball and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill.

- Dish top of backfill to allow for mulching. Provide additional backfill berm around edge of excavations to form shallow saucer to collect water.

- Mulch pits, trenches and planted areas. Provide not less than 2" thickness of mulch and work into top of backfill and finish level with adjacent finish grades. Maintain exposed root flare at all times.

- Prune only injured or dead branches from flowering trees, if any. Protect central leader of tree during shipping and pruning operations. Prune shrubs to retain natural character in accordance with standard horticultural practices.

- Remove and replace excessively pruned or ill-formed stock resulting from improper pruning.

- The Contractor shall be wholly responsible for assuring that all trees are planted in a vertical and plumb position and remain so throughout the life of this contract and guarantee period. Trees may or may not be staked and guyed depending upon the individual preference of the Contractor; however, any bracing procedure(s) must be approved by the Owner prior to its installation.

3.3 INITIAL MAINTENANCE

- A. Begin maintenance immediately after planting, continuing until final acceptance. A minimum of thirty (30) days.

- B. Maintain planted and seeded areas by watering, rolling/regrading, replanting and implementing erosion control as required to establish vegetation free of eroded or bare areas.

- C. Fescue and Native Planting areas are to be mowed only once per spring during the initial three year establishment period.

3.4 NATIVE LANDSCAPED AREAS CONTINUED MONITORING & MAINTENANCE

A. Monitoring

The Owner shall notify the County upon completion of plantings. The Owner's Environmental Specialist shall inspect the plantings and provide the County with a copy of the planting locations, species, and quantities for verification by the County.

The Owner's Environmental Specialist shall inspect the plantings at least twice per year during the three-year term of the Establishment and Maintenance Cash Bond or Letter of Credit, to determine compliance with the minimum annual performance criteria (See 1.5C Guarantees). A monitoring report will be provided to the County by January 31st following each growing season.

B. Maintenance:

First Season

With the exception of the emergent area, native seeding areas should be mowed to a height of 6" to control annual nonnative and invasive species early in the growing season. Mowing, including weed whipping, should be conducted during prior to weed seed production. Mowing height and frequency may need to be adjusted per target species. Small quantities of undesirable plant species, shall be controlled by hand pulling prior to the development and maturity of the plant. Hand removal shall include the removal of all above-ground and below-ground stems, roots and flower masses prior to development of seeds. Herbicide should be applied as necessary by a trained and licensed operator that is competent in the identification of native and nonnative herbaceous plants. Debris and litter shall be removed from the native areas and storm structures shall be inspected and maintained as necessary.

Second Season

Control of undesirable plant species during the second growing season shall consist primarily of precise herbicide application. Mowing and weed whipping shall be conducted as needed during the early growing season and as needed to a height of 6 to 8 inches to prevent annual weeds from producing seed. Debris and litter shall be removed from the native areas and storm structures shall be inspected and maintained as necessary.

Third Season

Seasonal mowing and herbicide will continue as above but should be reduced over time. Debris and litter shall be removed from the native areas and storm structures shall be inspected and maintained as necessary. At the completion of the third growing season (dependent on fuel availability, dominance of graminoid species, and favorable weather conditions), fire may be introduced to the planted areas as the primary management tool.

State and local permits shall be required prior to controlled burning. Burning shall be conducted by trained professionals experienced in managing smoke in urban environments. Prior to a controlled burn, surrounding property owners as well as local fire and police departments shall be notified. A burn plan detailing preferred wind direction and speed, location of fire breaks, and necessary personnel and equipment shall be prepared and utilized in planning and burn implementation.

The initial burn shall be dependant on fuel availability which is directly related to the quantity and quality of grasses contained within the plant matrix. Timing of the burn shall be determined based on results of the annual monitoring indicating species composition of the management area and other analysis of management goals. Generally, burns shall be scheduled from spring to fall on a rotational basis. Burn frequency shall also be dependent on the species composition within the management area. Generally, a new prairie restoration area shall be burned annually