

5.3 New and Existing Plantings

Large plants provide greater environmental benefit than small plants. The combination of multi-tiered plantings (e.g., canopy tree, understory, ground cover, perennial plantings, and turf grass) enables a site to achieve a higher GAR score than would otherwise be possible.

INTEGRATION

Landscaping elements that are consistent over the same surface area	Canopy Tree	Understory Tree	Shrub	Perennial	Grass	Turf	Ground Cover	Water Feature	Lighting	Art	Structural
New & Existing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

CONSTRUCTION INSPECTION

The Certified Landscape Expert is responsible for confirming the following construction items meet the standards below prior to signing the Landscape Checklist:

- Plant material is installed at horticulturally appropriate times with consideration for weather, season, and site conditions.
- Plants are installed after topsoil has been confirmed to meet specifications.
- Plant material meets standards listed in the approved plan and the American Horticultural Society for Nursery Stock (ANSI 2013-2014).
- Plant installation is conducted according to industry standards and common horticultural practices, with all plant material in good health at the time of planting and final inspection.
- Trees and shrubs must have a species identification tag from the nursery to remain on 2' of each planted species until the Landscape Checklist is signed, to be removed after inspection to prevent grafting.
- Plants are to receive proper post-installation watering and care.

STANDARDS

DESIGN

Plant Stock - Size and Quality Specifications

All plant material shall comply with the American Horticultural Society for Nursery Stock (ANSI 2013-2014). Considerations for plant material specifications include the following:

- Relationship between caliper, height, and branch number
- Size of the root ball or container
- Relation of root ball diameter and tree height
- Relation of ball depth to ball diameter
- Relation of container size to caliper height
- Annual, bi-lateral, or plantings otherwise requiring annual replanting do not count for GAR credit unless used for food cultivation purposes
- Smaller caliper trees establish more quickly than larger specimens; thus, larger caliper trees should only be specified if there is dedicated maintenance during plant establishment
- Balled and burtopped (B&B), containerized, and bare root plants are all acceptable for planting; however, bare root material has restricted planting season in comparison to B&B and containers

Location and Spacing

Plant spacing should be specified with consideration for a species mature spread as well as immediate visual impact.

- The plant spacing is species-specific. Canopy trees should be spaced to achieve the minimum tree soil volume.
- Ground covers and plants above 2 feet tall shall be planted to provide full mature coverage at the time of planting. Refer to the GAR Plant List for recommended spacing by species. Perennials and grasses in containers should be spaced 12-24 inches apart, and plugs should be spaced a maximum of 2 inches in center. Species with greater spread should have an accordingly greater spacing.
- Shrubs planted under trees may receive full equivalent square footage however, shrubs may not be planted within the root ball or root flare of trees.
- Ground cover may be planted underneath shrubs and trees, however, ground cover should not be planted within the root balls or existing root flare. Therefore, the root ball should not be included within the ground cover calculations.

Plant Protection Measures

Planting areas shall be protected from vehicular traffic. Examples of design landscape area protection include, but are not limited to, wheel stops, curbs, bollards, and fencing.

Species Selection

Select species compatible with the cultural and design constraints of the site. Factors to consider include the following:

- Suitability to proposed soils
- Drainage
- Soil volume
- Availability of sunlight
- Wind exposure
- Plant habit in relation to circulation patterns and existing buildings or structures

During planting design, careful consideration should be given to maintenance needs. Plant combinations with species of diverse structural form, year-round cover, and site-appropriate selection typically provide lower-cost and lower-input maintenance. Invasive species may not be installed on GAR qualifying sites. Invasive species lists are provided in Section 5.3.3 Native Plants. Native species receives bonus credit if meeting the standards of Section 5.3.3 Native Plants.

Tree Pit Opening

Tree pit openings should be large enough to prevent contact between mature tree trunk flare and pavement, curb, tree grass, or other barriers. The tree pit opening should be at least 3 times the mature tree's trunk diameter at breast height or greater.

CONSTRUCTION

Planting Season, Weather, and Site Conditions

Plant material and seeding should be installed within designated planting seasons, however, weather and soil conditions may affect planting dates. No planting, seeding, or soil installation shall be done in frozen or snow-covered ground, wet soil, or when the soil is otherwise in an unsatisfactory condition for planting.

Recommended planting time are as follows:

- Deciduous plants - mid-October through May
- Evergreen plants - mid-March through May and September through November
- Turf grass seeding - March through April and mid-August through October
- Soil - all months (with irrigation)

Preparing the Planting Hole

If planting in existing uncompacted soils, excavate the planting hole to a minimum of 2 times the width of the rootball, then slope the sides outward to surrounding soils. In compacted soils, excavate the planting hole to a minimum of 3 times the width of the rootball, then slope outward to surrounding soils. Trees with limited opportunity to spread to surrounding soils, due to compaction under pavement or if planted in containers, should be designed with an enlarged soil volume and installed up to 36 inch depth. All newly planted B&B tree rootballs shall be placed directly over compacted subsoil.

Pruning

Prior to planting, inspect trees for dead, diseased, or crossing branches and prune accordingly. Remove co-dominant trunks and broken branches.

Plant Installation

All plant material shall be installed to the following standards:

Trees and Shrubs

- Conform to least 2 structural roots, 4 inches from the trunk, are within the top 3 inches of the top of the root ball. If excess soil is present, raise the root ball and expose the trunk flare, or otherwise respect the plant material if remaining root volume is too limited. Place the root ball directly over subgrade to avoid settling.
- Remove the top 8-12 inches of the wire basket from B&B material to prevent future root girdling. Remove burlap from the top of the root ball. Synthetic burlap and rope are not allowed for planting.
- Inspect and remove girdling or circling roots prior to backfilling. Place tree irrigation bags or water wells over newly planted trees. Fill irrigation bags or otherwise imagine new plantings to provide a minimum of 1 inch of water per week. Spread 3 inches of mulch over the root ball, but not in contact with the trunk.

Perennials and Ground covers

- Plant all material at or slightly above final grade. Backfill the planting holes with topsoil, tamp down, and water thoroughly.
- Spread 2 inches of mulch between plantings.

Turf grass

- Loosen, amend as necessary, and fine grade topsoil prior to seeding. If existing topsoil is compacted, rototill or use a similar method to decompact the material
- After topsoil is loosened and scarified, place the seed, lightly rake into the soil, and roll for good soil-seed contact.
- Establish a full stand of grass for acceptance

The necessity for tree staking is specific to individual trees and locations. Trees should be staked under the following conditions:

- Windy locations
- Trees subject to vandalism or mowing damage
- Trees subject to settlement in soil
- Large crown volume

Transplanting and Large Tree Planting

Tree transplanting should be done by a qualified contractor. Successfully transplanting larger trees requires greater care during construction. Specialized equipment and/or specialized equipment are necessary to perform this work. Refer to the American Horticultural Society for Nursery Stock (ANSI 2013-2014) for all root ball size standards and handling.

NEW AND EXISTING PLANTINGS

All Plantings

- Provide supplemental watering if rainfall is less than 1 inch per week during the first 2 growing seasons.
- Conduct weeding as necessary to reduce competition between weeds and plantings for nutrients, soil moisture, and sunlight.
- Replace mulch every 2-3 years, or as necessary to recommended depth (see the following paragraphs).
- Monitor the plantings for disease or stress and modify maintenance practices as necessary. Employ an integrated pest management (IPM) approach if possible.
- Remove dead plant material and replant in the next appropriate growing season.

Trees and Shrubs

- For trees, install slow-leak watering bags or tree buckets during the first 2 growing seasons. Water as necessary to supplement precipitation if less than 1 inch per week. Remove watering bags or tree buckets after plants have established.
- Inspect trees for signs of dead, diseased, or crossing branches and prune accordingly. Remove canopy limbs from established trees. Never remove more than 20% of the tree canopy during pruning activities in any year.
- Spread mulch at a maximum 3-inch depth and ensure mulch is not against the trunk of the tree.
- Maintain tree health by limiting all grade changes and other soil disturbance underneath the tree's critical root zone.

Perennials and Ground Covers

- In the early spring, deadhead top-growth from perennials and warm-season grasses.
- Periodically divide perennials as necessary to encourage rejuvenated growth.
- Spread mulch at a maximum 2-inch depth.

Turf Grass

- Apply lime and fertilizer only as soil test results indicate.
- To reduce weed germination, maintain turf grass at an increased height. Never mow more than 1/3 of the grass height. Maintaining grass clippings in place after mowing reduces fertilizer requirements.
- Regularly monitor and over-seed bare spots to prevent weed establishment.
- In late fall, core aerate and top-dress with organic matter.

PERMEABLE PAVING

Maintenance is critical to the performance and longevity of permeable paving systems. Clogging of paving systems with sediment and organic material is the most frequently cited maintenance item. Regular street sweeping and inspection of the paving system is required to remove accumulated sediment and to provide maintenance repairs as needed to help prevent clogging. It is critical that surrounding areas remain stabilized and do not introduce sediment onto the permeable paving. Maintenance criteria for permeable paving can be found in the DOE Stormwater Management Guidebook, Section 5.5.7. Follow the manufacturer's maintenance guidelines, if available.

Table 10 Typical Maintenance Tasks for Permeable Paving Practices

Frequency	Maintenance Task
After installation	For the first 6 months following construction, the practice and CDA should be inspected at least twice per week after storm events that exceed 1/2 inch of rainfall. Stabilize any failing areas that may be developing adjacent to the pavement areas.
Once every 3-2 months during the growing season	Mow the grass in a vegetated permeable pavement application.
As needed	Stabilize the CDA to prevent erosion. Remove any soil or sediment deposit on the pavement. Replace or repair any pavement surfaces that are degenerating or spalling.
2-4 times per year	Mechanically sweep pavement with a standard street sweeper.
Annually	Conduct a maintenance inspection. Spot weed for grass application.
Once every 2-3 Years	Remove any accumulated sediment in pretreatment areas and inflow areas.
If clogged	Conduct maintenance using a regenerative street sweeper or vacuum sweeper. Replace any joint materials.

STANDARD PLANTING DETAILS
SHRUBS

STANDARD PLANTING DETAILS
GROUND COVER & PERENNIALS

Professional Engineer: Muhammad H. Khalil, License No. 18609

Professional Engineer: Muhammad H. Khalil, License No. 18609

SITE PLAN NARRATIVE

THE SITE CONSISTS OF LOT 0024 OR SQUARE 5562. THE PROJECT WILL RENOVATE THE INTERIOR OF EXISTING BUILDING AS A RESULT OF COST OF CONSTRUCTION AND THE NUMBER OF UNITS, GAR PLAN IS REQUIRED.

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08/17/2020
Board of Planning & Zoning
District of Columbia

GAR DETAILS
CIV611

CASE NO.20320
EXHIBIT NO.38

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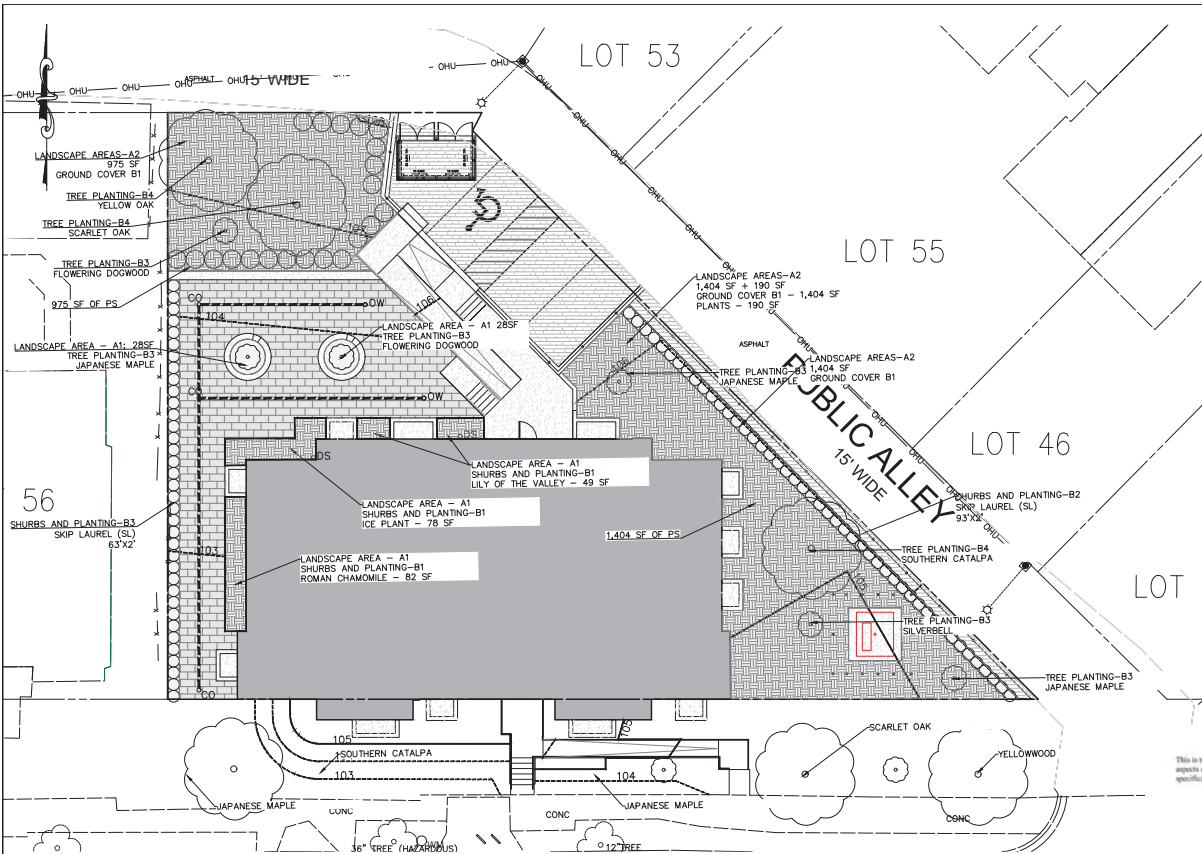
APARTMENTS AT 5900 FOOTE ST

5900 FOOTE ST NE
WASHINGTON, DC 20019

DISTRICT OF COLUMBIA
08/17/2020
PROFESSIONAL LICENSE

NO.	DATE	DESCRIPTION
08/17/2020	PERMIT SET	

Project Number: 2020-26
Issue Date: 7.10.2020



NOTE: ALL TOP SOIL DISTURBED BY CONSTRUCTION IN PROPOSED LANDSCAPED AREAS SHALL BE DECOMPACTED TO A MINIMUM OF 24" IN DEPTH AND AMENDED ACCORDING TO THE SOIL SPECIFICATION (1.102) BEFORE THE INSTALLATION OF ANY PLANTS OR TURF GRASS.

Green Area Ratio Score Sheet			
Landscape Elements	Quantity	Points	
		Points per Unit	Total Points
A. Landscaped areas (select one of the following for each area)			
1. Landscaped areas with a soil depth > 2"	1	100	100.0
2. Landscaped areas with a soil depth > 2"	1	5.00	5.00
B. Plantings (credit for plants in landscaped areas from Section A)			
1. Groundcover, or other plants < 2' height	1	1.00	1.00
2. Plants > 2' height at maturity	1	1.00	1.00
C. Vegetated wall, planting on a vertical surface			
1. Over at least 2' and less than 12' of vertical surface	1	1.00	1.00
D. Renewable Energy**			
1. Photovoltaic paneling over 4" x 8" of solar panel	1	1.00	1.00
2. Photovoltaic paneling over 8" x 12" of solar panel	1	1.00	1.00
E. Reuse			
1. Native plant species	1	1.00	1.00

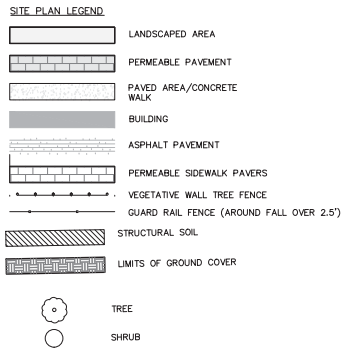
STATEMENT BY CERTIFIED LANDSCAPE EXPERT

This is to certify that I have examined all required GAR plus submittals prior to submission. I further certify that all aspects of the submittal, including landscape elements within the Lot and the final GAR score, meet the specifications required under Subtitle C, Chapter 8 of Title 11 of the District of Columbia Municipal Regulations.

GALATES SERA, PHD, PE | OWNER
322 RITTENHOUSE ST NW 20011
Address

Date: 02/28/2020 Phone No: (202)417-6559

ISA MA-6186A
International Society of Arboriculture
Certification Number



PLANT SCHEDULE												
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	HEIGHT	SPREAD	REMARKS	GAR CATEGORY	NATIVE		
PS	2375	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	12"x12"x12" CONT	6"-10"	16"	1ft	PLANT 12" OC	B1	Y		
TF	28	Echinops	ICE PLANT	1 GAL CONT	15"-18"	4"-12"	12"-24"	SEEDS	B1	Y		
LV	49	Convolvulus mollis	LILY OF THE VALLEY	1 GAL CONT	15"-18"	4"-12"	12"-24"	SEEDS	B1	Y		
RC	82	Chamaemelum nobile	Roman Chamomile	1 GAL CONT	8"-12"	15"-30"	3"-5"	SEEDS	B1	Y		
SHRUBS AND PLANTS:												
SL	330	Ligustrum	PRIVET	3 GAL CONT	18"	4'-18"	8'-0"	UP TO 12' TALL	B9	Y		
TREE COVER												
5		ACER PALMATUM	JAPANESE MAPLE	3" CALIPER		7'-8"	10'-12"	SMALL TREE	B3	N		
2		CATALPA BIGNONIODES	SOUTHERN CATALPA	3" CALIPER		25'-40"	40'-50"	LARGER TREE	B4	Y		
2		Cotinus florida	FLOWERING DOGWOOD	3" CALIPER		20'-30"	30'-40"	SMALL TREE	B3	Y		
2		QUERCUS COCCINEA	SCARLET OAK	4" CALIPER		60'-80"	40'-50"	LARGER TREE	B4	Y		
2		Gladiolus kentukea	YELLOW BIRD	3" CALIPER		30'-50"	40'-55"	LARGER TREE	B4	N		
1		Halesia tetrapetala	SILVERBELL	3" CALIPER		30'-40"	20'-30"	SMALL TREE	B3	Y		

SITE PLAN NARRATIVE

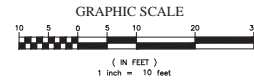
THE SITE CONSISTS OF LOT 0805 OF SQUARE 5256.

THE PROJECT WILL BE FOR THE NEW CONSTRUCTION OF THE BUILDING, AS A RESULT OF COST OF CONSTRUCTION AND THE NUMBER OF UNITS, GAR PLAN IS REQUIRED.

ALL NEW PLANT MATERIALS MUST MEET THE STANDARDS IN THE ANIA (AMERICAN STANDARDS FOR NURSERY STOCK) ANSI Z60.1-2014)

IF SOILS ARE DISTURBED, A MINIMUM 5% ORGANIC MATTER (BY WEIGHT) MUST BE PROVIDED TO A 12-INCH OR GREATER SOIL DEPTH.

THE PROPERTY OWNER IS REQUIRED TO MAINTAIN THE LOTS' MINIMUM GAR SCORE THROUGH APPROPRIATE STEWARDSHIP AND MAINTENANCE OF LANDSCAPE ELEMENTS AFTER THE PROPERTY IS GRANTED ITS CERTIFICATE OF OCCUPANCY.



08/17/2020

THESE PLANS ARE ISSUED FOR AGENCY REVIEW. ALL APPLICABLE AGENCY PERMIT APPROVALS MUST BE OBTAINED PRIOR TO CONSTRUCTION. FINAL APPROVED FOR CONSTRUCTION PLANS WILL BE ISSUED UPON COMPLETION OF THE REVIEW AND APPROVAL PROCESS BY ALL DISTRICT AGENCIES.

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GAR PLANS
CIV600