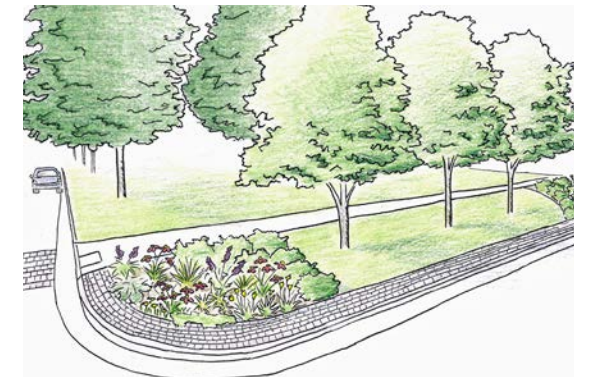


GHENT SQUARE COMMUNITY ASSOCIATION LANDSCAPE MASTER PLAN

SPRING 2018



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LANDSCAPE ARCHITECTS

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■

I. INTRODUCTION

The Ghent Square Landscape Master Plan offers a community-based vision and series of strategies for enhancing the neighborhood landscape. The planning process began with a thorough inventory of the community and a special focus on the shared neighborhood spaces (these spaces are listed in Section II.II Analysis & Assessment by Zone). An extensive photo inventory was compiled, along with a written record of observations. Through conversations with the Ghent Square Board as well as feedback from our resident survey, we gained insight into specific issues and topics important to the neighborhood. The design team took this information and developed ways to improve the neighborhood landscape. We propose to reinforce the best of the neighborhood and create new standards that address existing challenges and guide future decisions. As a way to communicate how the strategies may be applied, as well as highlight key spaces in the neighborhood that would benefit from a fresh perspective, the master plan includes several specific site designs that can be implemented immediately.

The Ghent Square Landscape Master Plan proposes solutions in a way that is cohesive throughout the community, strengthening its sense of identity and place. The master plan suggests ways to improve landscape and exterior spaces for years to come. It creates unity in the design so that the individual landscape elements relate properly to one another, regardless of when they are built.

Scope of Project

Ghent Square is located just northwest of downtown Norfolk. The neighborhood's boundaries are roughly West Olney Road to the south, and Shirley Avenue to the north, Colonial Avenue to the west, and Llewellyn Avenue to the east. The community consists of 462 units that include single-family homes, town homes and condominiums.

Within the boundaries of the community are shared neighborhood spaces, private residential land and public City property. All spaces, regardless of ownership, join together to create an overall impression of the neighborhood's quality and character. Enhancing all three types of spaces is vital to strengthening the overall character of the neighborhood.

Landscape elements addressed in the master plan include planting, fences and walls, flooding, gateways and shared community spaces we termed "public spaces." We focused on these elements because they have the greatest impact on community identity, character and function.

Key Recommendations of the Master Plan

- ▶ Reinforce the consistency of the tree canopy and throughout use a cohesive plant palette.
- ▶ Reduce the overall number of planting beds by turning some mulch areas into turf. Remaining planting beds should be high-impact through perennial and shrubs plant massing.
- ▶ Take mature height of shrubs into account when selecting plants to reduce the need for trimming and hedging in the future. The planting design, particularly proper plant selection, should reduce future maintenance requirements throughout the neighborhood.
- ▶ Improve fences and screens throughout the neighborhood through better maintenance and use of more durable materials. All new fences need to be cohesive and harmonious to unify the neighborhood.
- ▶ Stormwater solutions include recommendations for individual homeowners as well as partnerships with the City of Norfolk and nonprofit organizations such as Wetlands Watch and the Elizabeth River Project. Recommendations include rain barrels, cisterns, rain gardens and other measures that help reduce and/ or slow the amount of rainwater that enters the City storm system, thus reducing the severity of floods.
- ▶ Implement new standard "Ghent Square" signage throughout the community. (Section III.IV Gateways)
- ▶ Define and enhance major neighborhood gateways and boundaries through elements such as cobblestone cross walks, sidewalk embedded signs, light post mounted signs, planting enhancement and monument signs.
- ▶ Include new amenities in shared community spaces to encourage social interaction and support the public life of the neighborhood. They also act as focal points which enhance the sense of place and identity.

II

ANALYSIS & ASSESSMENT



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Section II.1 Analysis Overview

Introduction

Our master plan divides Ghent Square into 9 geographical zones separated by major intersecting streets: 1A - Van Wyck Mews, 1B - Pender Court, 2A - Westover Mews, 2B - Llewellyn Mews, 3A - Ferguson Court, 3B - Boissevain Mews + Olney Mews, 4A - Botetourt Court, 4B - Mowbray Court and 5 - Recreation Center (Fig. 1.1). Each zone is analyzed according to five focus issues for their direct impact on community identity, character, and function:

- ▶ Architectural Character - Studying each zone's architectural character enabled us to ensure aesthetic appropriateness of our recommendations.
- ▶ Open Space - Open space is analyzed considering the current spaces' function, views, access and adjacent uses, to assess opportunities for improvements.
- ▶ Existing Landscape - Existing plants were analyzed to assess health and vigor, likely life span, appropriateness of size and placement, and degree to which they reinforce or detract from the character or desired character of the public space.
- ▶ Fencing & Screening - Documenting the condition and location of existing fencing and recommending fence styles that will best serve the community.
- ▶ Flood Maps and Stormwater Management - Using flood maps and resident feedback, we identified areas with flooding issues to inform our recommendations.

1A - Van Wyck Mews
1B - Pender Court
2A - Westover Mews
2B - Llewellyn Mews
3A - Ferguson Court
3B - Boissevain Mews
+ Olney Mews
4A - Botetourt Court
4B - Mowbray Court
5 - Recreation Center

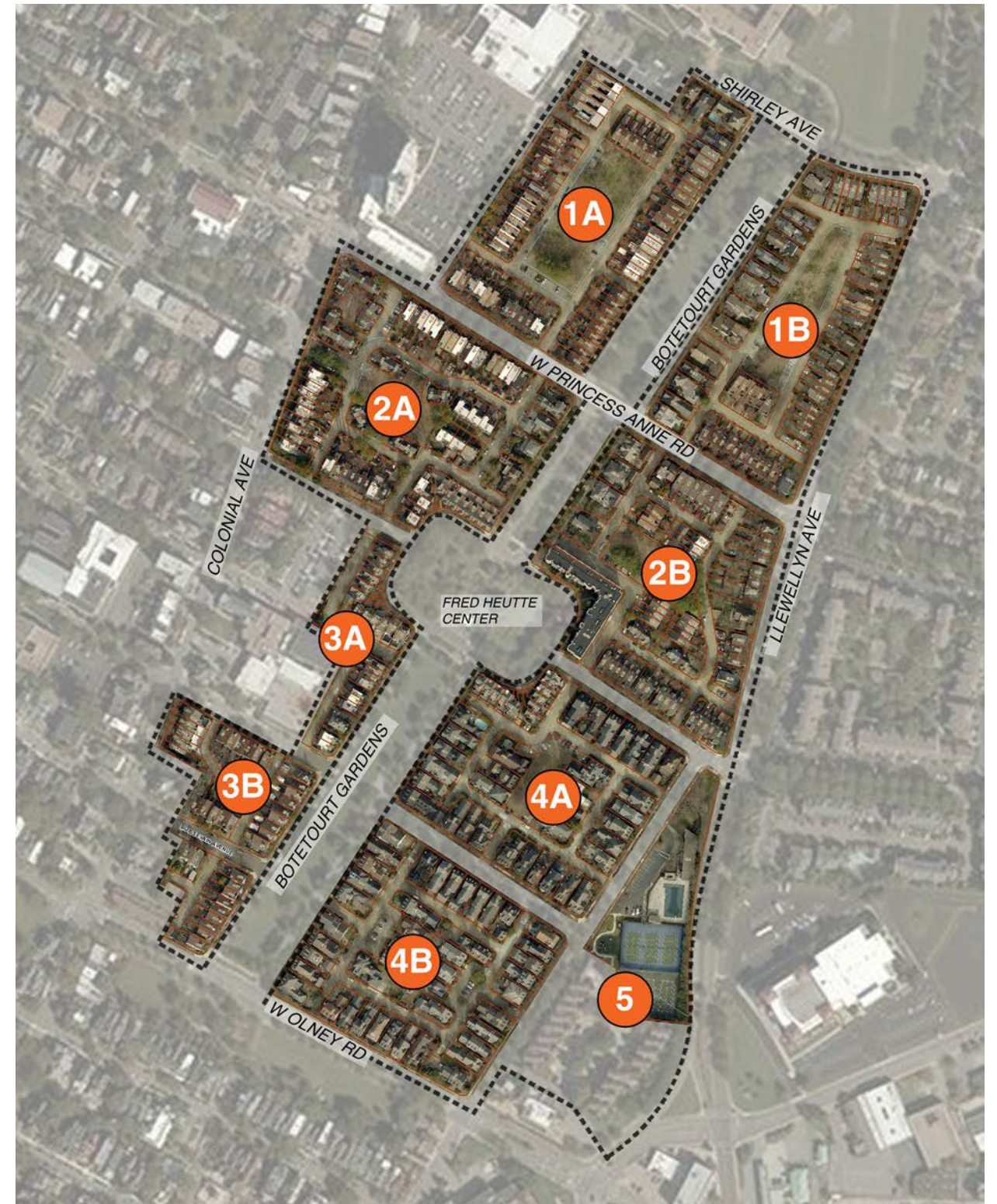


Figure 1.1 Ghent Square Zone Map

Resident Feedback Analysis

Residents' daily interaction with their landscape creates an intimate awareness of the existing conditions and is an important resource to implement effective improvements. Questionnaires were electronically distributed to all Ghent Square residents. The information and insight they provided greatly impacted the overall design.

The resident questionnaire consisted of six questions, map markup and an open comment section. The questions were:

- ▶ What activities do you regularly undertake in the public spaces in your neighborhood? Mark the location where you engage in these activities on your map and label them #1
- ▶ Are there any amenities that you don't currently have that would enhance the neighborhood for you?
- ▶ Favorite place in the neighborhood? Mark with a #3 on the map
- ▶ Least favorite place in the neighborhood? Mark with a #4 on the map
- ▶ How frequently is flooding occurring? Indicate the flooding trouble spots. Mark with a #6 on the map

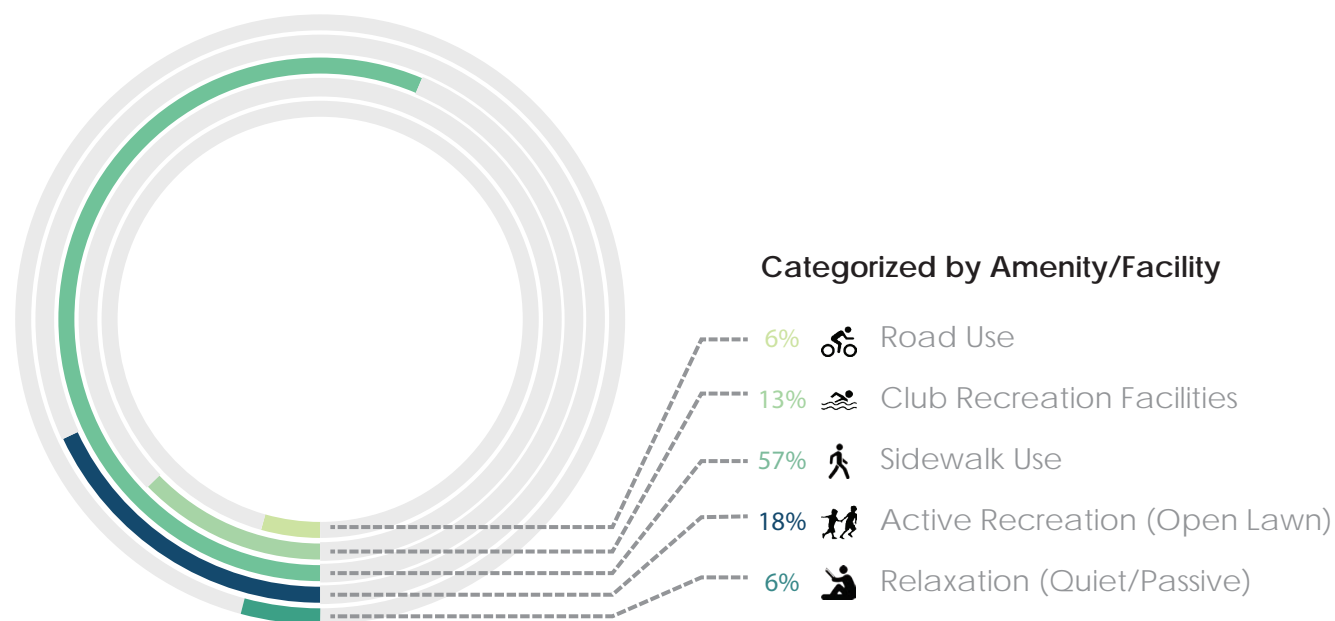


Figure 1.2 Question 1 Part 1: Categorized by Amenity

- ▶ What do you love about Ghent Square's landscape and public/ shared spaces?

Approximately 36 residents answered these questions, providing additional information unattainable via staff site visits. The data collected provided a vision for the open spaces to better meet the community needs and crafted ideas for possible new amenities. Knowing the residents' current favorite and least favorite areas ensures we maintain elements considered sacred to the community while, on the other hand, incorporate improvements into other areas considered below community standards. It was particularly critical to ask residents about flooding and stormwater management issues, which allowed more thorough assessment and solutions for specified areas. The following pages illustrate and summarize the feedback received from the questionnaire. These responses inform the proposed design strategies in *Chapter III* as well as the *Zone-Specific Design* in *Chapter IV*.

Q1. What activities do you regularly undertake in the public spaces in your neighborhood?

By far, walking or running was the most dominant activity and sidewalk use was the most dominant location. The second most dominant use including walking the dog, followed by playing with kids, swimming, bike riding, tennis, sitting and relaxing and participating in community events.

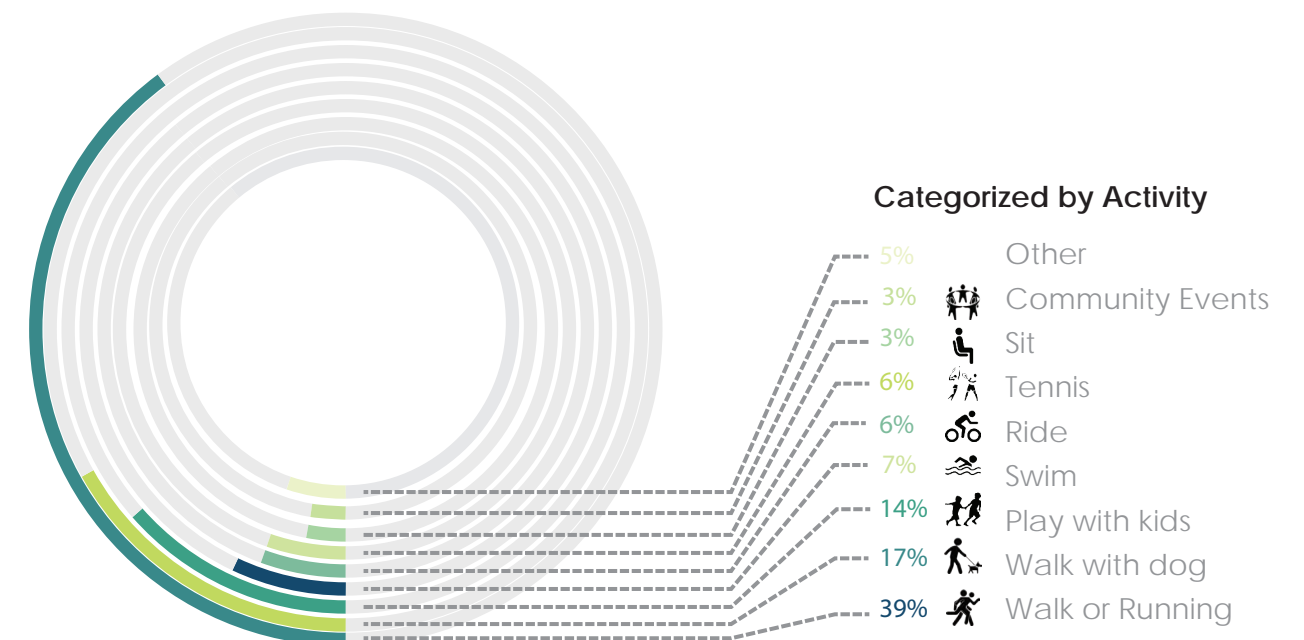


Figure 1.2 Question 1 Part 2: Categorized by Activity

Q2. Are there any amenities that you don't currently have that would enhance the neighborhood for you?

Amenities that residents focused on included not just built elements such as site furniture, water features, playgrounds, pavilions and gazebos, but also landscape features such as more places to gather, walk, and rest. Although not a part of the question prompt, residences referenced improving the maintenance of existing

amenities in their responses to enhance the community, indicating that aesthetic quality is a chief concern. Amenities like a dog park, central playground, benches and seating, garden structures, walking and gathering spaces and improved landscaping were mentioned in almost 70 percent of responses. Approximately 19 percent of the responses mentioned Improvements or additions to exercise amenities and over 11 percent of the respondents cited improved maintenance.

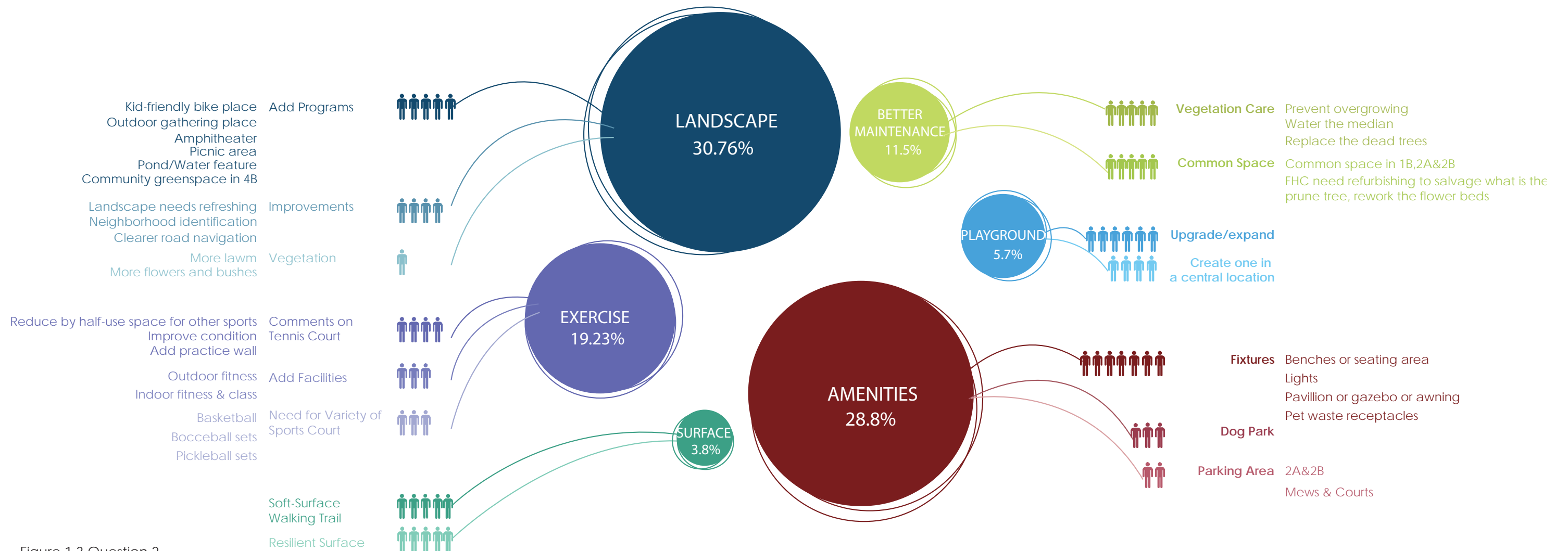


Figure 1.3 Question 2

Notes: One figure represents 10% of respondents within a given category

Q3. Indicate your favorite place in the neighborhood.

Residents responded positively to the balance of sun versus shade, beautiful tree canopies, open lawns, attractive colorful planting beds, well maintained landscape areas, and amenities like the playground, pool, clubhouse and places to play ball, sit or explore.

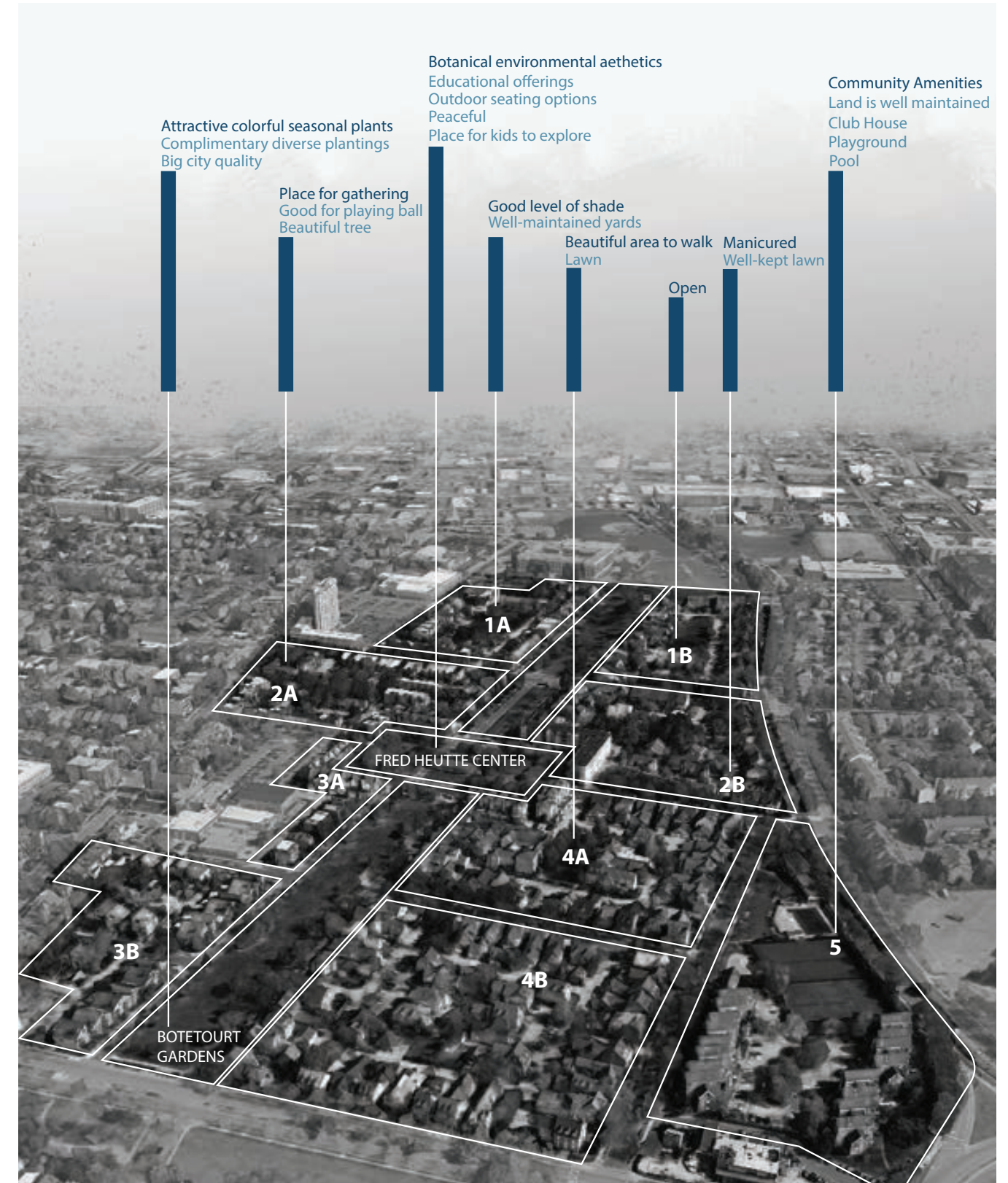


Figure 1.4 Question 3

Q4. Indicate your least favorite place in the neighborhood.

Overwhelmingly, concerns focused on issues of maintenance including landscape maintenance which are covered in greater depth in Section III.I Planting. Elements such as deteriorating wood fences, weedy or bare planting beds, overgrown trees and shrubs, and trash accumulation were noted. In addition, shared spaces that seemed too private, uninviting or underwhelming were also a concern.

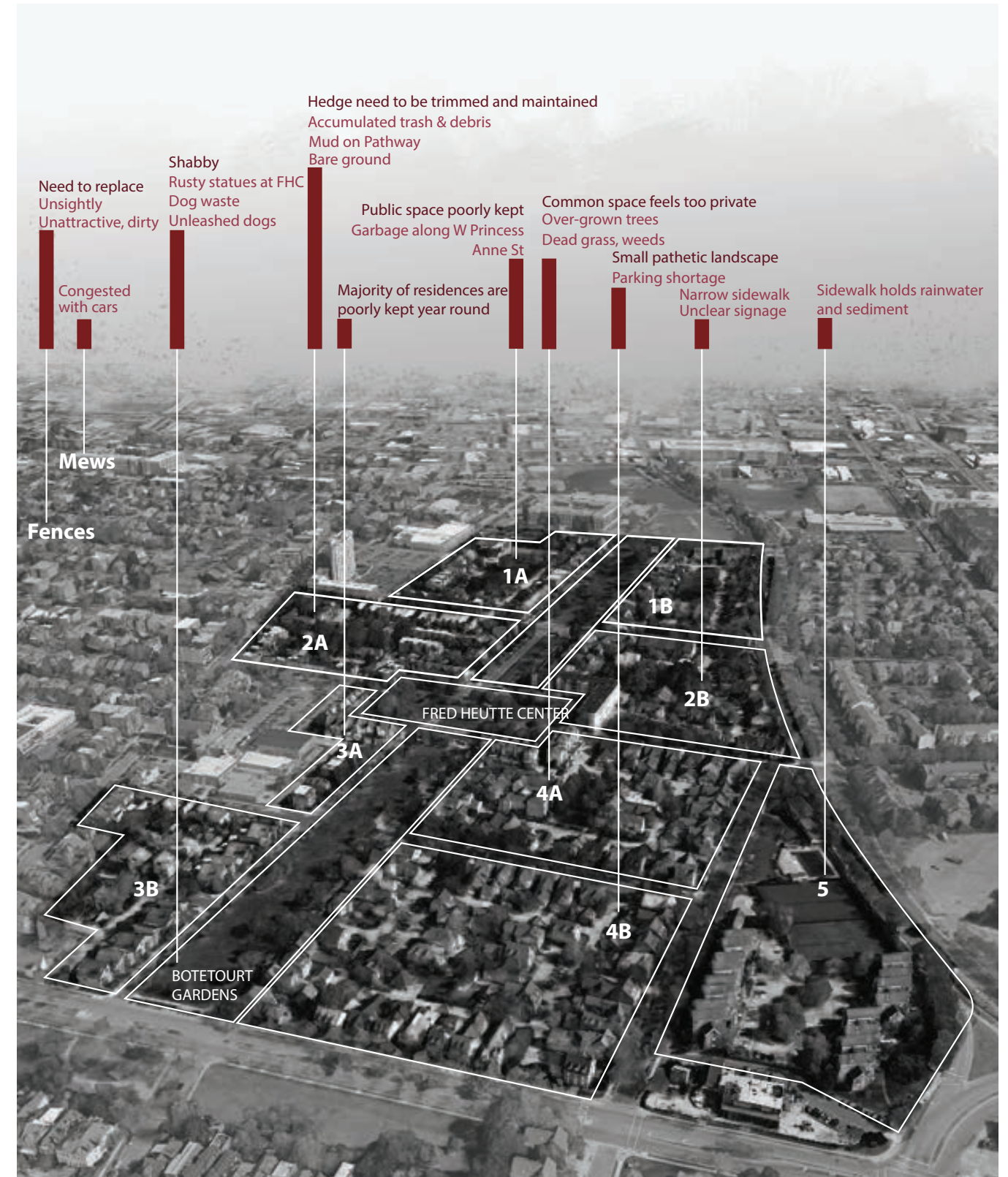


Figure 1.5 Question 4

Q5. How frequently is flooding occurring? Indicate the flooding trouble spots. Flooding throughout Ghent Square is a primary concern of residents and is geographically widespread. Locations of flooding are reflected in the Tidal Inundation Tracking Application for Norfolk (TITAN) Flood maps shown for each Zone in Section II.II as well as indicated on the resident feedback map (Fig. 1.7) The flooding depicted in the application represents local tide water levels throughout the city based on the NOAA Tide Gauge 8638610. To view the TITAN Application visit the City of Norfolk Website or [click here](#).

Section III.III Flooding, addresses ways in which individual residents, and the community together can address street flooding issues through stormwater management best practices.

Q6. What do you love about Ghent Square’s landscape and public/ shared spaces?

Approximately 50 percent of the responses cited open space for activities, gathering and peaceful sitting as a top reason to love Ghent Square. The vegetation, particularly the mature trees and colorful perennials along with the grass, is also mentioned in reasons to love Ghent Square.

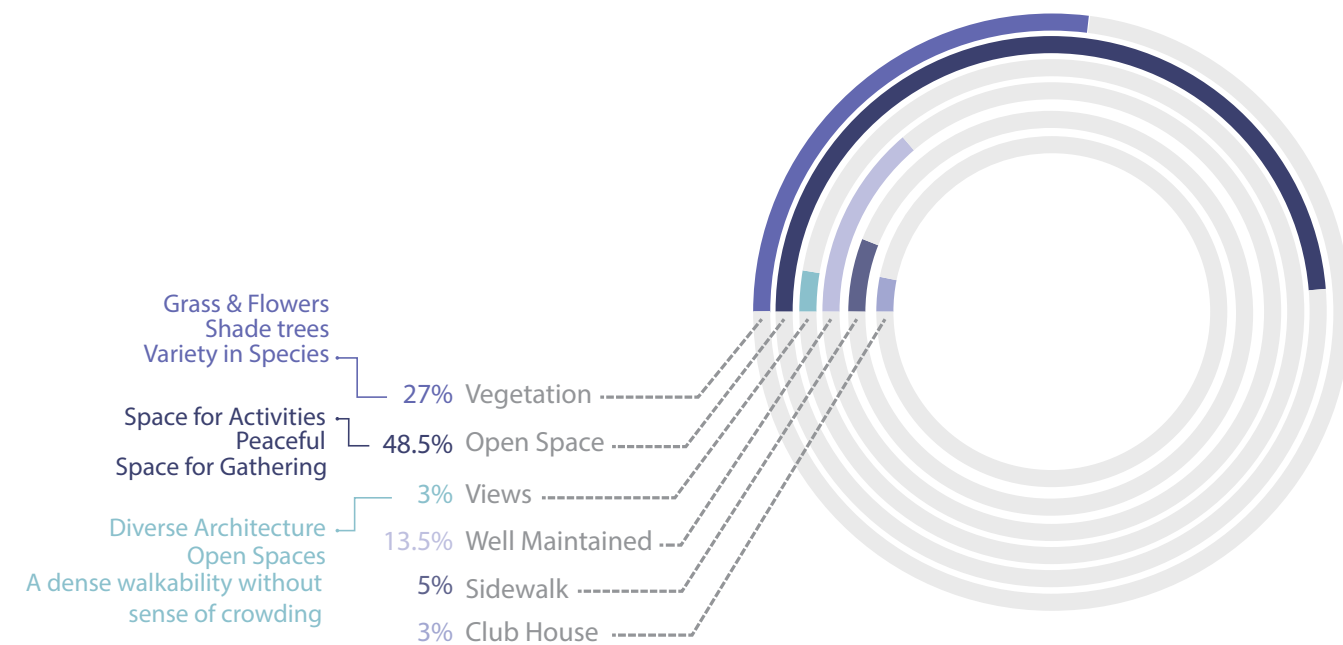


Figure 1.6 Question 6

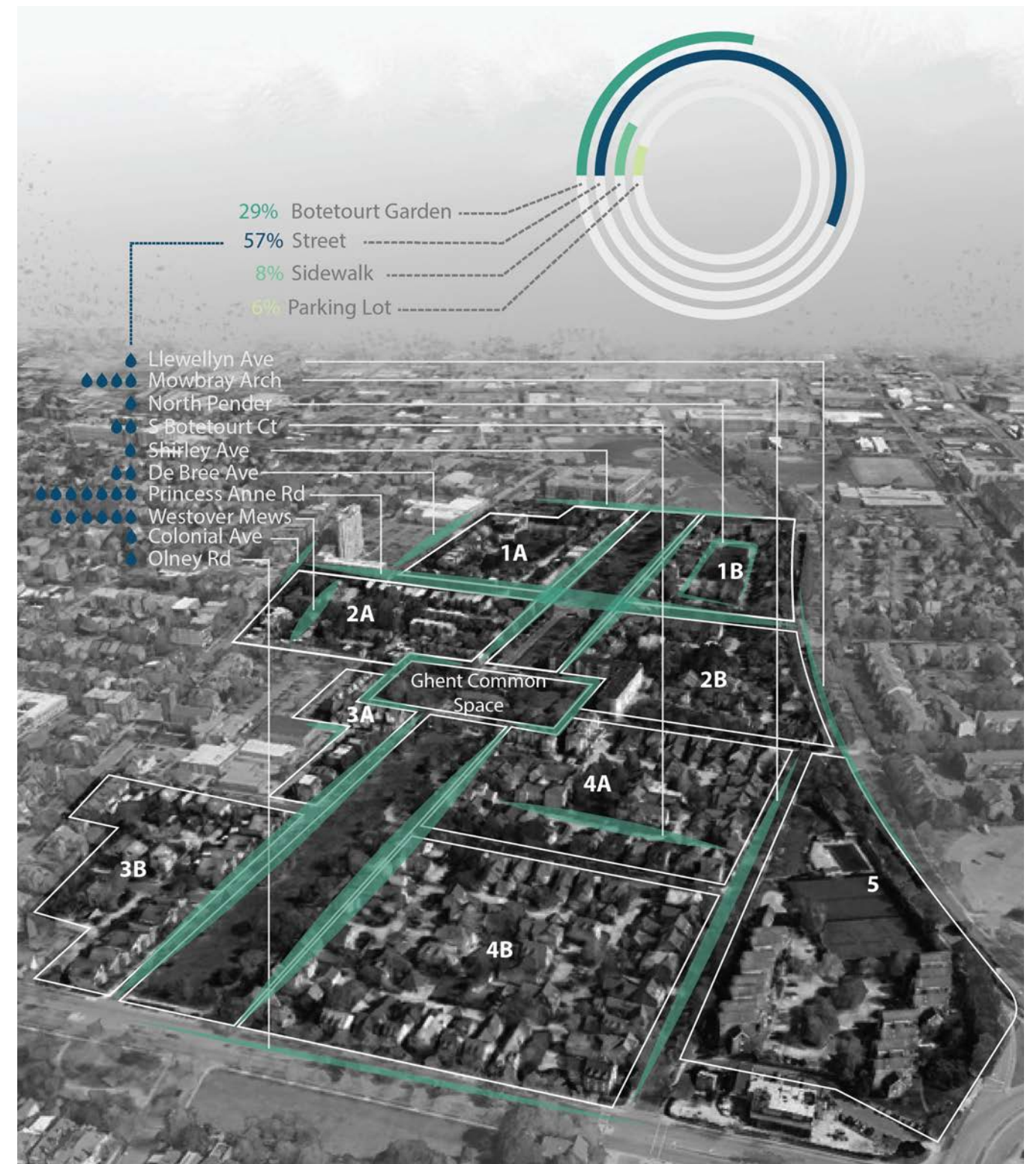


Figure 1.7 Question 5

Section II.II Analysis and Assessment by Zone

Zone 1A - Van Wyck Mews

Zone 1A, located in the northwest corner of Ghent Square, consists of contemporary wood siding, and stucco town-homes; transitional brick and siding town-homes; traditional colonial brick town-homes and single-family colonial style homes. These homes surround Van Wyck Mews, the large central green space. This zone is directly adjacent to the Harris Teeter grocery store, Maury High School, and the Van Wyck Norfolk Public Library (Fig. 2.1).

- ▶ Single-family homes and town-homes on eastern edge have view of Botetourt Gardens.
- ▶ Large mature trees line the streets and are scattered throughout green space.
- ▶ Parking on the southern end of the public space is buffered by existing healthy pines.
- ▶ Multiple areas have vacant or sparse planting beds.
- ▶ Several areas need additional screening.
- ▶ The central greenspace lacks amenities and 'personality', aside from being a functional lawn.
- ▶ Fencing consists of vertical slat wood fencing and brick walls to match the exterior of the town-homes located in the northwest section. There are exists some black chain link fencing around the Public Library. Town-homes just north of the Van Wyck Mews green space have low brick walls with black metal fencing on top.
- ▶ Flooding is a concern along Debre Avenue, West Princess Anne Rd and Botetourt Gardens. (Fig. 2.2)

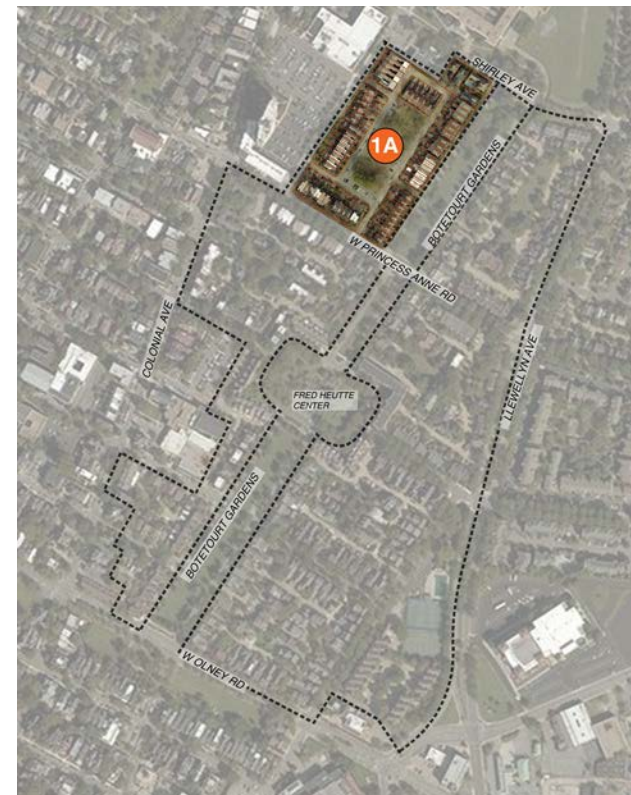


Figure 2.1 Location of Zone 1A



Open Space



Parking lots and adjacent planting beds



Architectural Character



Views to be screened



Fencing & Walls



Figure 2.2 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.3 Existing Conditions Assessment Map

Zone 1B - Pender Court

Zone 1B, located in the northeast corner of Ghent Square (Fig. 2.4), consists of contemporary brick and wood siding town-homes, transitional brick and siding town-homes, traditional colonial brick town-homes, traditional single-family homes and modern single-family homes. These homes surround Pender Park, the large central green space.

- ▶ Single family homes and town-homes on the western edge of the zone overlook Botetourt Gardens.
- ▶ Large mature trees line the streets along the perimeter of Zone 1B and are scattered throughout Pender Park.
- ▶ There are a few instances of tired shrubs around utilities and parking areas and bare areas of turf under large mature trees.
- ▶ Screening in this zone consists of vertical slat wood fencing and brick walls. Some wood fencing has not been properly maintained and need to be replaced.
- ▶ The undulating topography of Pender Park discourages recreational use and the linear lawn lacks a focal point as well as amenities.
- ▶ Flooding is a concern along Llewellyn Avenue, Shirley Avenue and Botetourt Gardens. (Fig. 2.5)

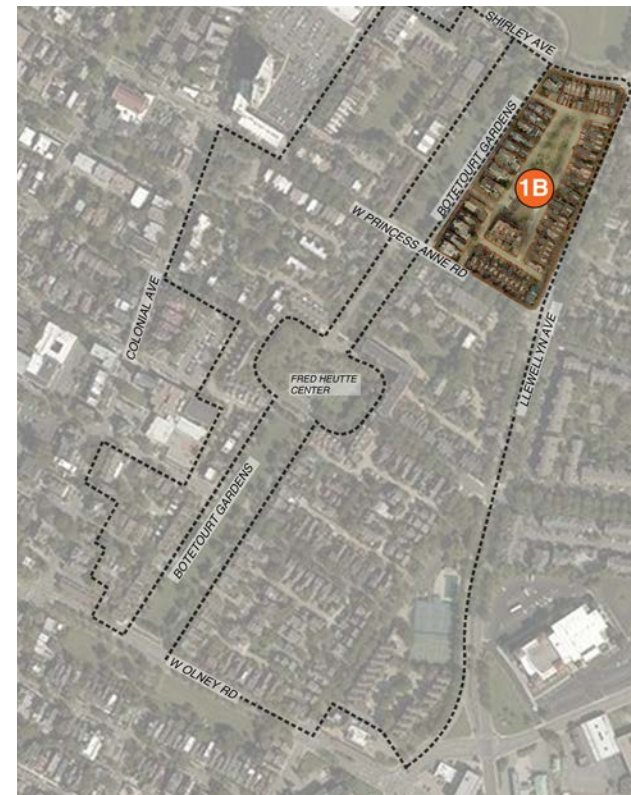


Figure 2.4 Location of Zone 1B



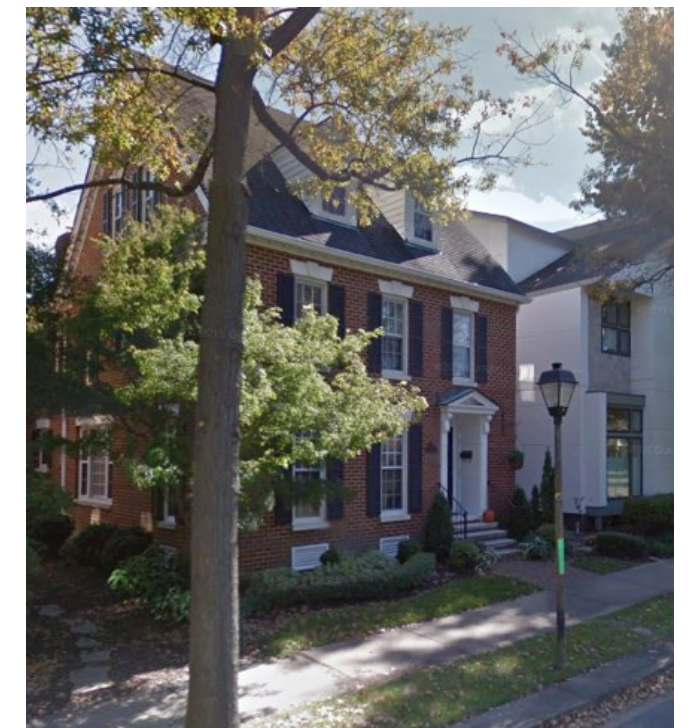
Open Space



Parking lots and adjacent planting beds

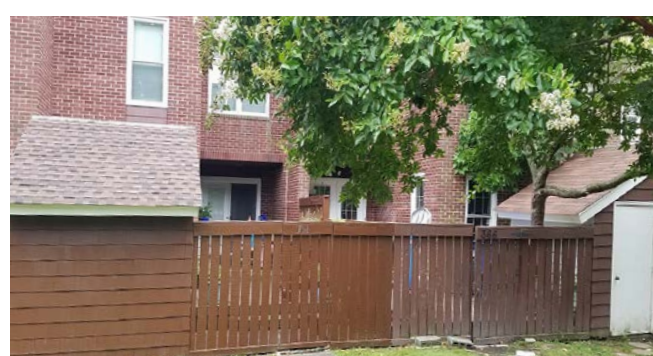


Architectural Character





Views to be Screened



Fencing & Walls



Figure 2.5 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.6 Existing Conditions Assessment Map

Zone 2A - Westover Mews

Zone 2A, located in central Ghent Square northwest of the Fred Heutte Center (Fig. 2.7), consists of brick condominiums, traditional colonial brick town-homes and single-family homes. The Westover Mews green space is centrally located, and the Westover Mews Courtyard is in the northwest corner of the zone faced by town-homes.

- ▶ Single family homes and town-homes on the eastern edge of the zone overlook Botetourt Gardens and the Fred Heutte Center.
- ▶ Large mature trees line the streets of this zone and fill the large open space and courtyard.
- ▶ Throughout the zone these mature trees out compete the turf for nutrients and water, creating large bare areas.
- ▶ Planting is sparse around parking and along fencing that backs up to the large open space.
- ▶ Screening within in this zone consists of a wide variety of vertical wood slat fencing (some with brick piers). There is also a brick wall on the corner of West Princess Anne Road and Botetourt Gardens that matches the exterior of the home. Some wood fencing has not been properly maintained and needs replacing.
- ▶ Central green space/courtyard consists of lots of exposed dirt and mulch, lacks a focal point and amenities.
- ▶ Flooding is a concern along Botetourt Gardens, West Princess Anne Road and Colonial Avenue.(Fig. 2.8)
- ▶ Colonial Avenue and Princess Anne Road are highly trafficked thoroughfares, yet their intersection offers a disjointed view of this important gateway into the neighborhood, with a poorly maintained fence as a backdrop to scruffy grass and poorly placed utility boxes.

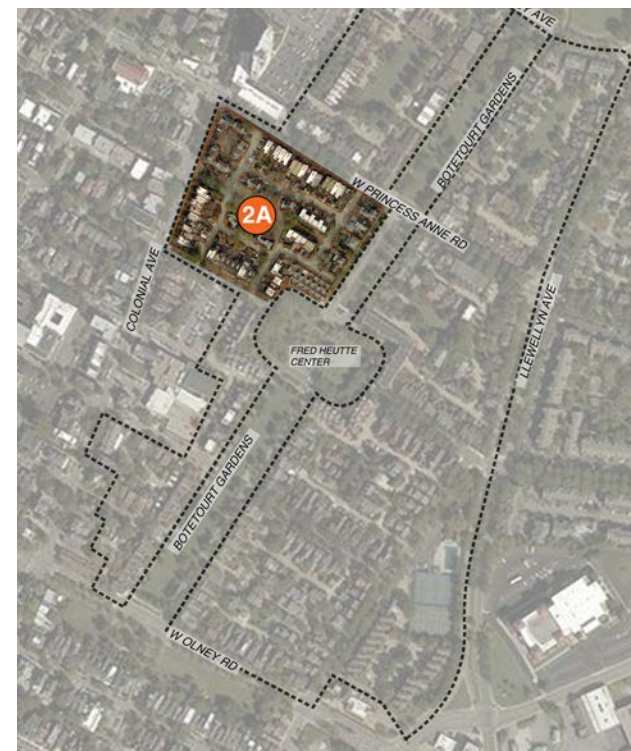
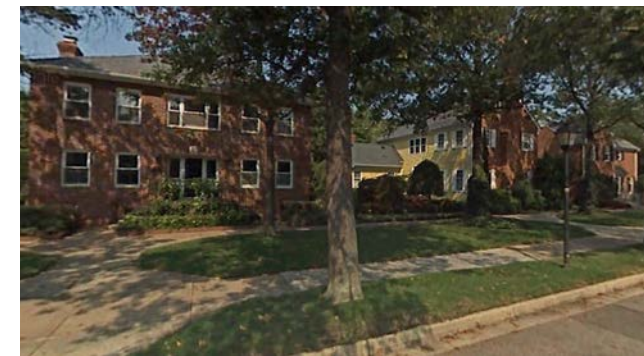
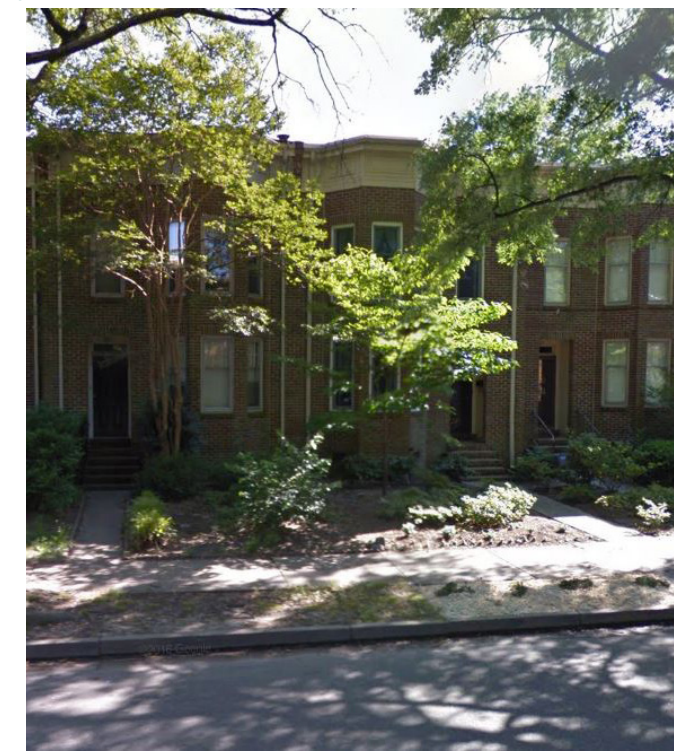


Figure 2.7 Location of Zone 2A



Open Space



Architectural Character



Fencing & Walls



Figure 2.8 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.9 Existing Conditions Assessment Map

Zone 2B - Llewellyn Mews

Zone 2B, located in central Ghent Square northeast of the Fred Heutte Center (Fig. 2.10), consists of brick condominiums, brick and siding town-homes and single-family homes. The Llewellyn Mews green space is centrally located in this zone.

- ▶ Single family homes, town-homes and condominiums along the western edge of the zone overlook Botetourt Gardens and the Fred Heutte Center.
- ▶ Large mature trees line the streets of this zone and fill the central open space.
- ▶ Screening in this zone consists of a wide variety of vertical and horizontal wood slat fencing. Some wood fencing has not been properly maintained and needs replacement.
- ▶ Flooding is a concern along Botetourt Gardens, Westover Avenue and the section of Llewellyn Mews that connects these two roads (Fig. 2.11).
- ▶ Shared spaces in this zone are well maintained, but drainage and aesthetic quality should be improved.
- ▶ Runoff from the central green drains east to the street carrying mulch and debris with it. This area should be regraded to crown it in addition to planting more under-story plants in a rain garden.
- ▶ Plants in the central green are healthy, but beyond the flowering Crape Myrtles, there is a lack of seasonal interest.
- ▶ The views into the space from the south and west lack a focal point, and both locations could be enhanced with a more defined plantings along the edges and at entry points.

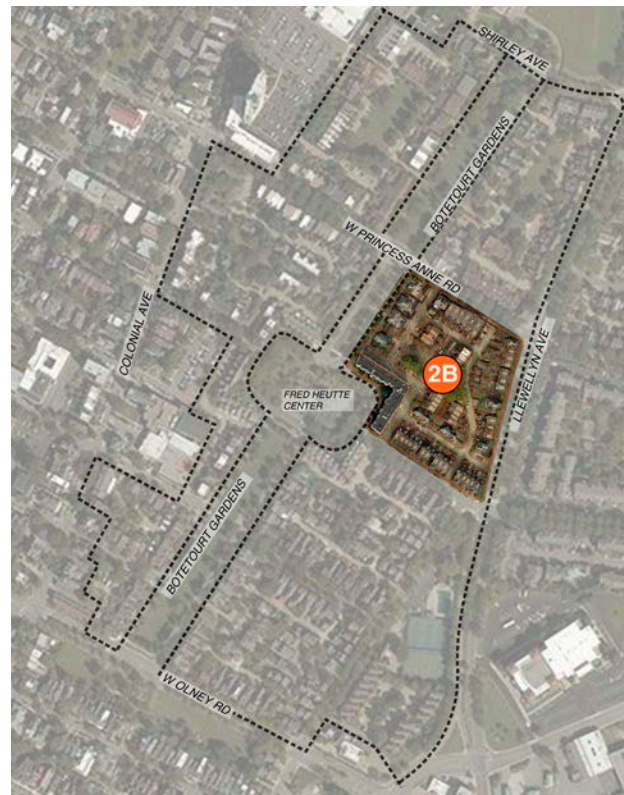
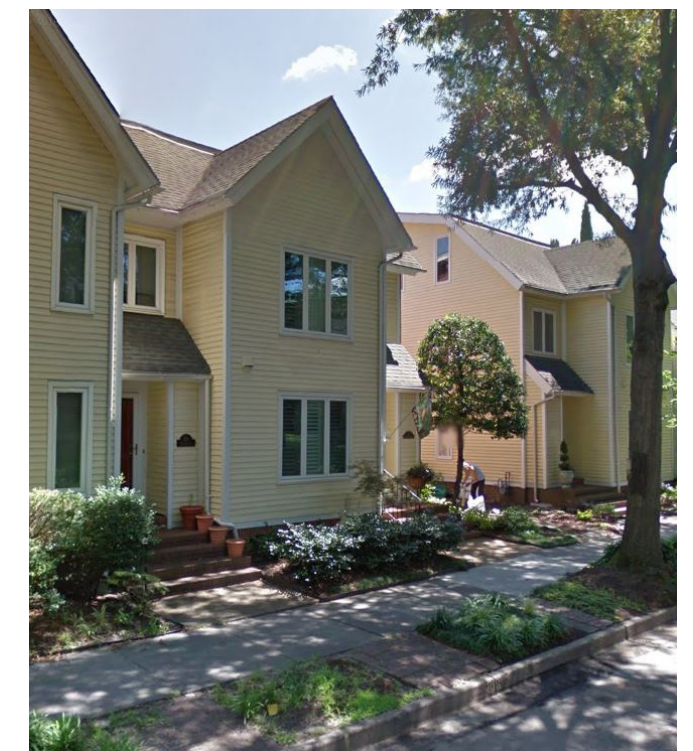
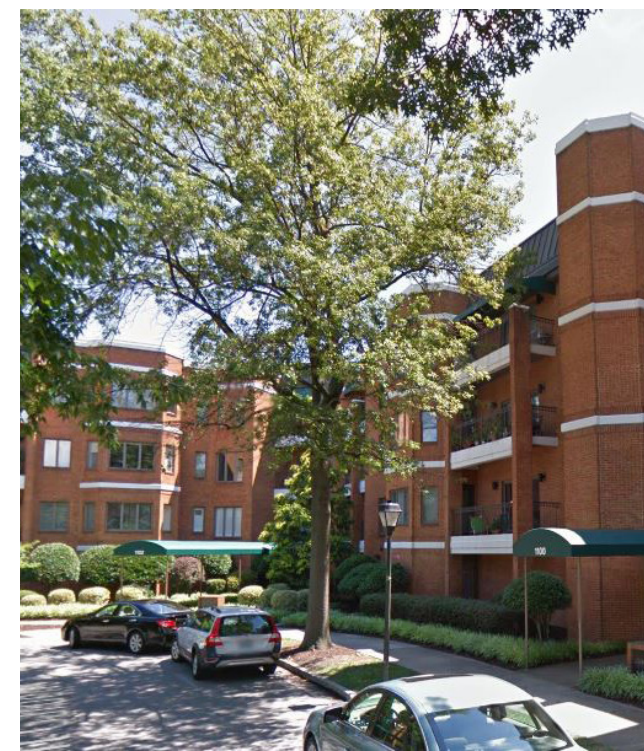
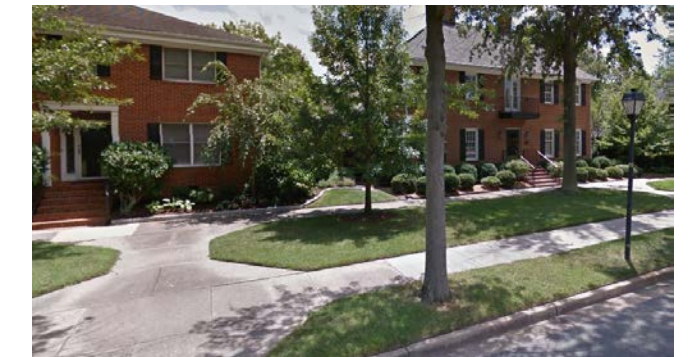


Figure 2.10 Location of Zone 2B



Open Space



Architectural Character



Additional Planting areas



Fencing & Walls

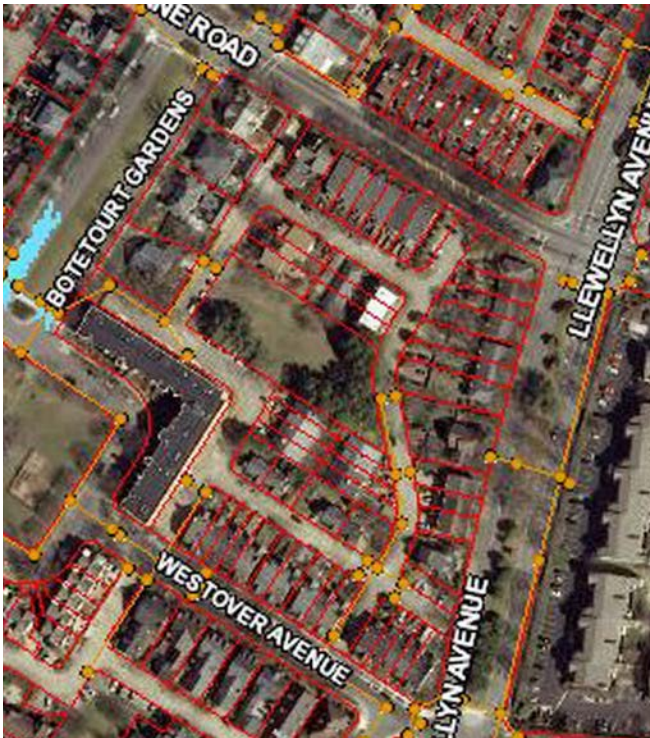


Figure 2.11 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.12 Existing Conditions Assessment Map

Zone 3A - Ferguson Court

Zone 3A, located in central Ghent Square southwest of the Fred Heutte Center (Fig. 2.13), consists of brick town-homes and brick and siding town-homes. This zone is directly adjacent to First Presbyterian Church and its parking lot.

- ▶ Town-homes along the eastern edge of this zone overlook Botetourt Gardens and the Fred Heutte Center.
- ▶ Large mature trees flank Botetourt Garden and Westover Avenue but there is little tree canopy along the south west side of this zone or along Raleigh Avenue.
- ▶ Sparse, poorly pruned and tired planting adjacent to the church school detract from the well designed and maintained homes in this zone.
- ▶ While landscape screening from the parking lot is sufficient and healthy, planting more flowering shrubs and trees will make it more cohesive with the rest of Ghent Square.
- ▶ Fencing in zone 3A consists of mostly vertical slat wood fencing with some black aluminum fencing and chain link fencing around the church parking lot to the west. There is also a small section of a brick wall along Botetourt Gardens. This zone needs consistent fencing material.
- ▶ Flooding occurs along Botetourt Gardens, the eastern portion of Raleigh and Westover Avenues and within Ferguson Court. (Fig. 2.14)

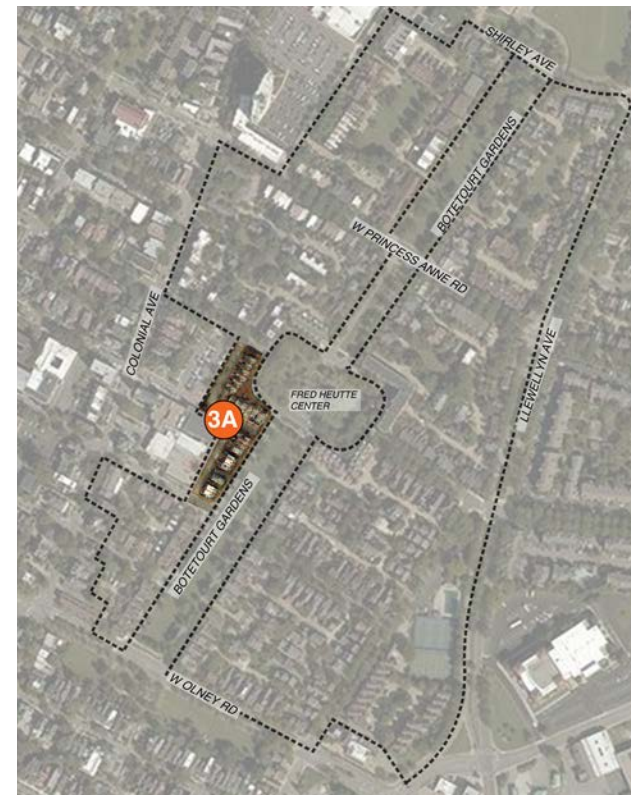
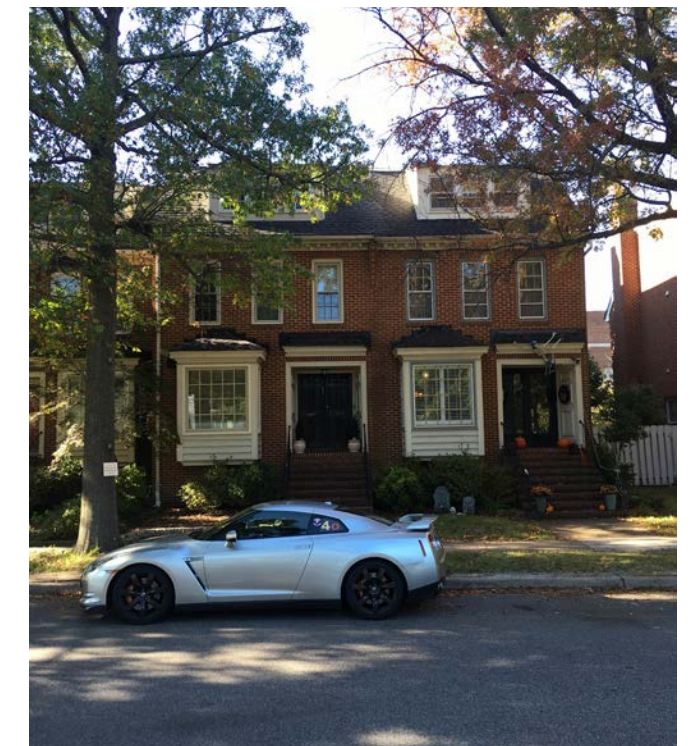
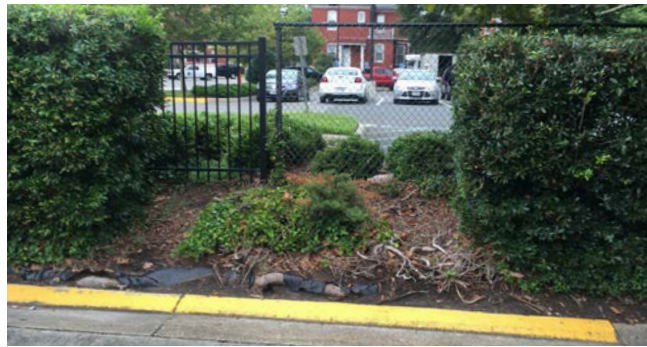


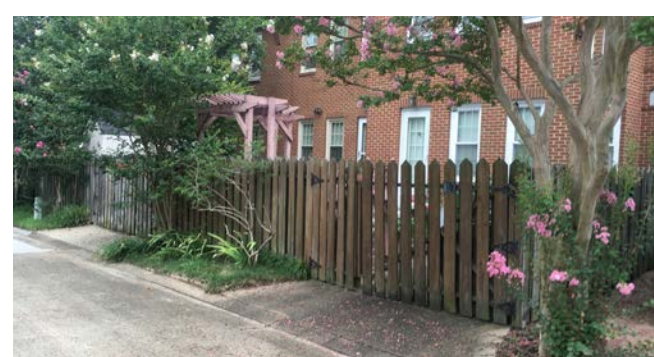
Figure 2.13 Location of Zone 3A



Architectural Character



Additional Planting areas



Fencing & Walls



Figure 2.14 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map

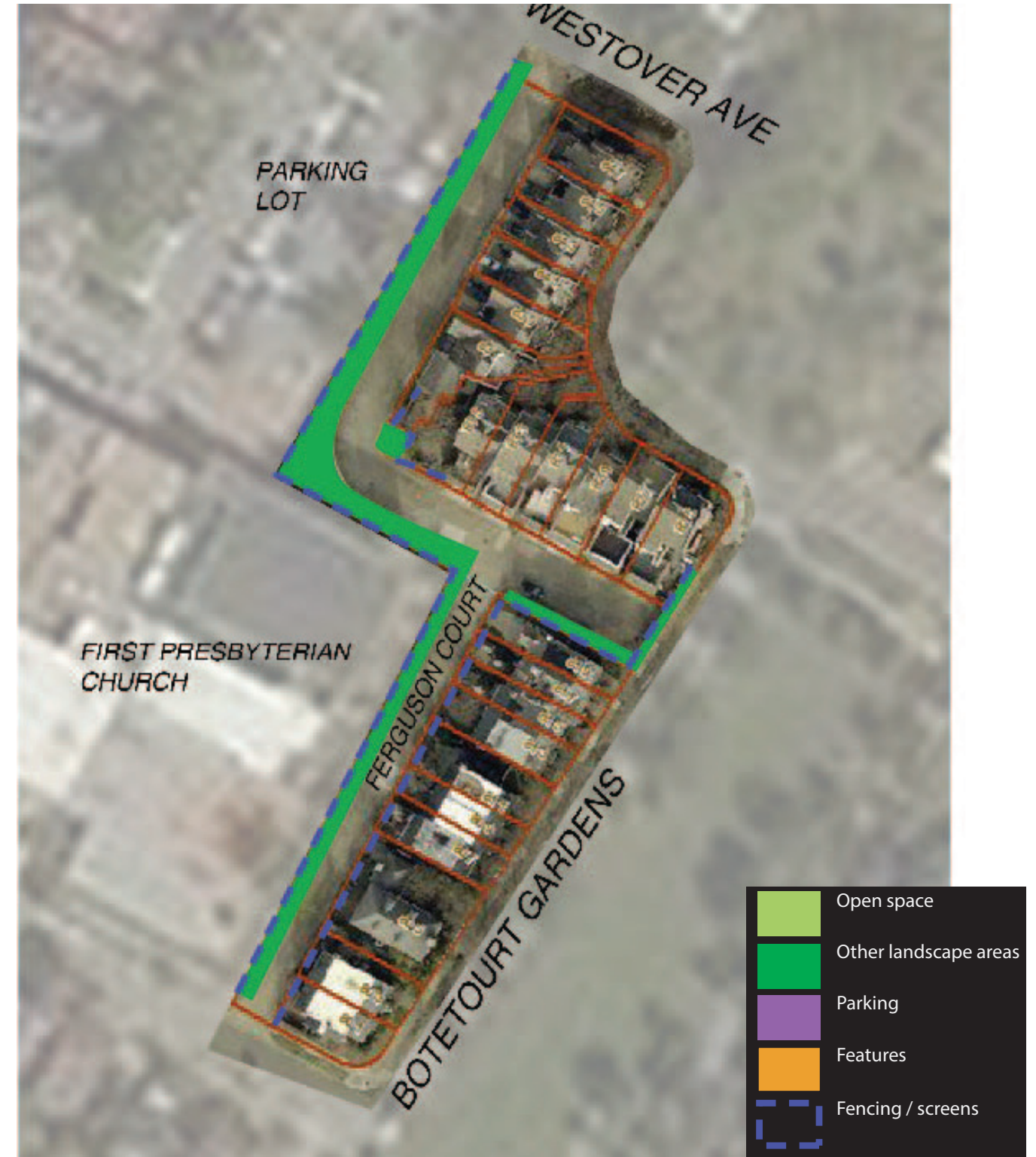


Figure 2.15 Existing Conditions Assessment Map

Zone 3B - Boissevain Mews + Olney Mews

Zone 3B, located in the southwest corner of Ghent Square (Fig. 2.16), consists of contemporary siding town-homes and brick town-homes.

- ▶ Town-homes along the eastern edge of this zone overlook Botetourt Gardens.
- ▶ Large mature trees line Botetourt Garden, young canopy trees are dotted along Boissevain Avenue and a few smaller trees are visible on Raleigh Avenue.
- ▶ Planting is sparse in the interior of this zone.
- ▶ A wide variety of vertical wood slat fencing is found throughout.
- ▶ Implementation of the palette of flowering shrubs and trees in this area would engender a cohesiveness with the rest of Ghent Square.
- ▶ The ancient, huge Sycamore tree at the center of Boissevain Mews is worth preserving for as long as possible. Yearly or at least every other year assessments by a qualified arborist is recommended. When the tree finally fails, careful consideration should be given to its replacement.
- ▶ There is space for a focal planting in the central island of Boissevain Mews to add a central interest.
- ▶ Flooding is a concern along Botetourt Gardens and on the corner of Raleigh Avenue and Botetourt Gardens (Fig 2.7).

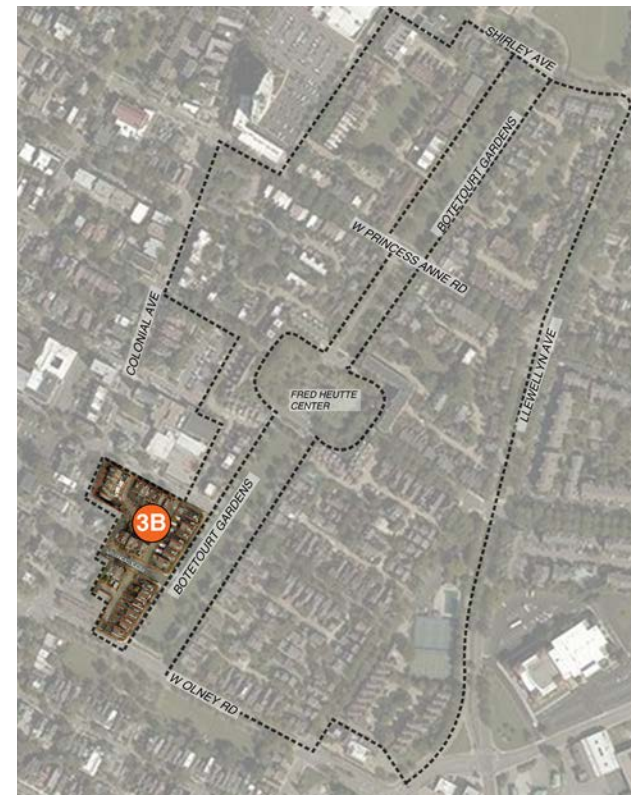
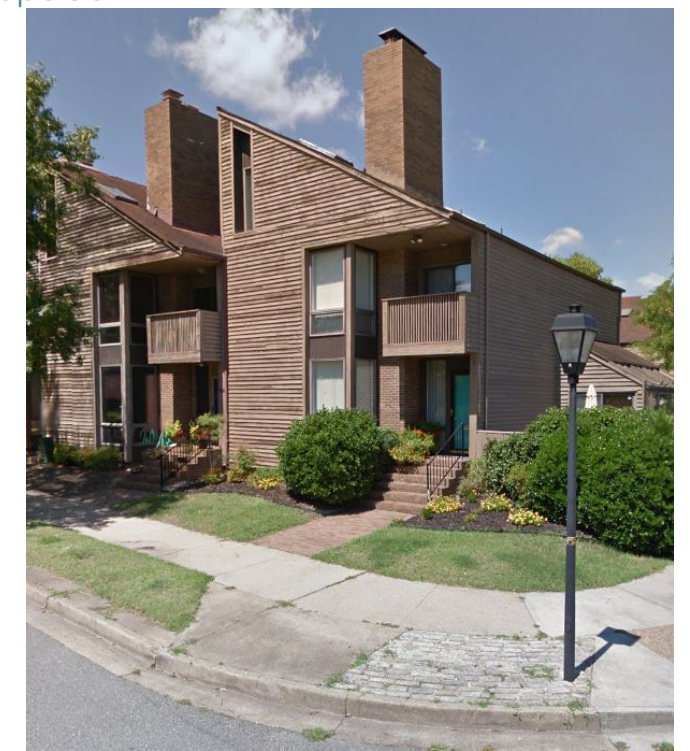


Figure 2.16 Location of Zone 3B



Open Space



Architectural Character



Additional Planting areas



Fencing & Walls



Figure 2.17 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.18 Assessment Map

Zone 4A - Botetourt Court

Zone 4A, located in central Ghent Square southeast of the Fred Heutte Center, consists of brick town-homes and single-family homes (Fig. 2.19).

- ▶ Town-homes and single-family homes along the western edge of this zone overlook Botetourt Gardens and the Fred Heutte Center.
- ▶ Large mature trees line the streets and central open space of this zone.
- ▶ Multiple areas have vacant or sparse planting beds throughout the zone.
- ▶ The verges along West Botetourt Court off Raleigh Avenue and planting beds adjacent to the open space need to be enhanced to create a greater sense of welcome.
- ▶ Screening in this zone consists largely of brick walls that match the character of the homes with a few instances of vertical wood slat fencing.
- ▶ Flooding is a major concern in this zone along Botetourt Gardens, Westover Avenue and on the corner of Raleigh Avenue and Mowbray Arch.
- ▶ In the shared space, a focal point or careful planting to frame views from the Courts into the central green will give the space a greater sense of character and frame the view from the north and south end.

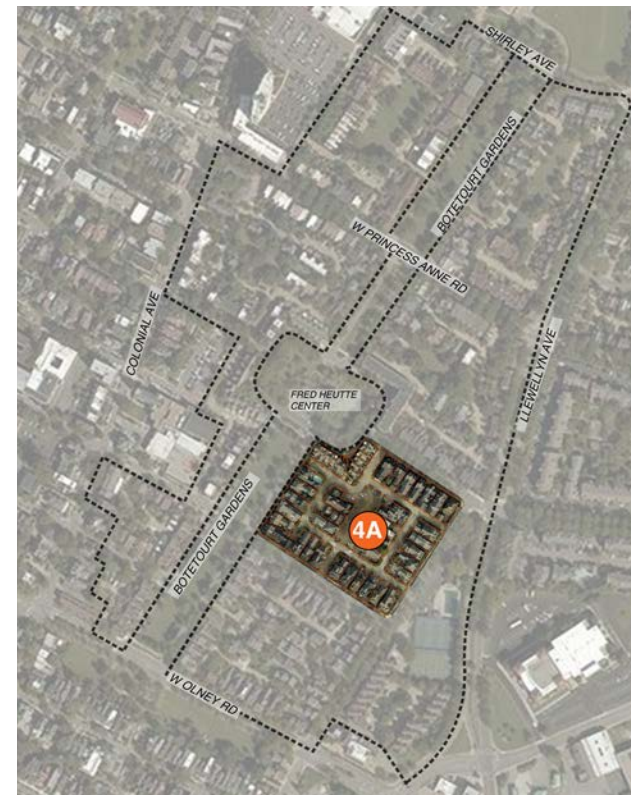
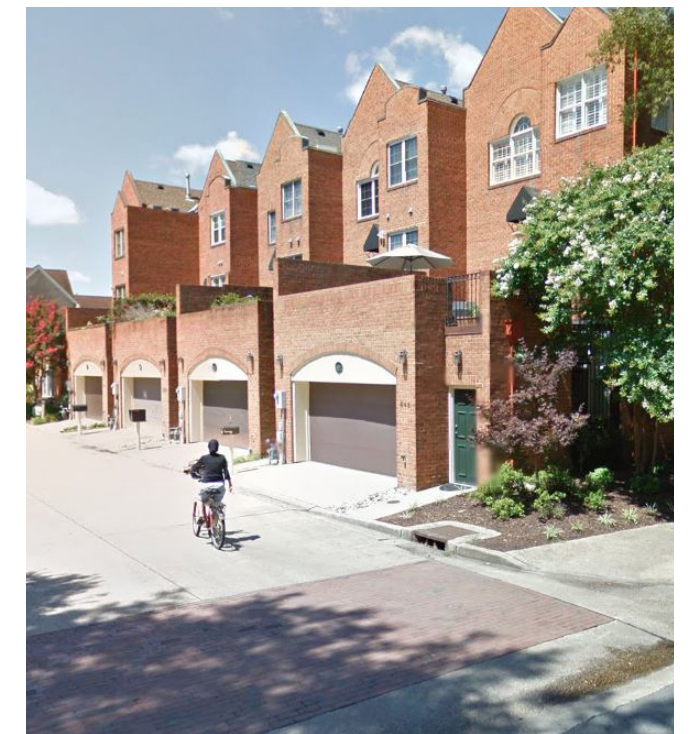
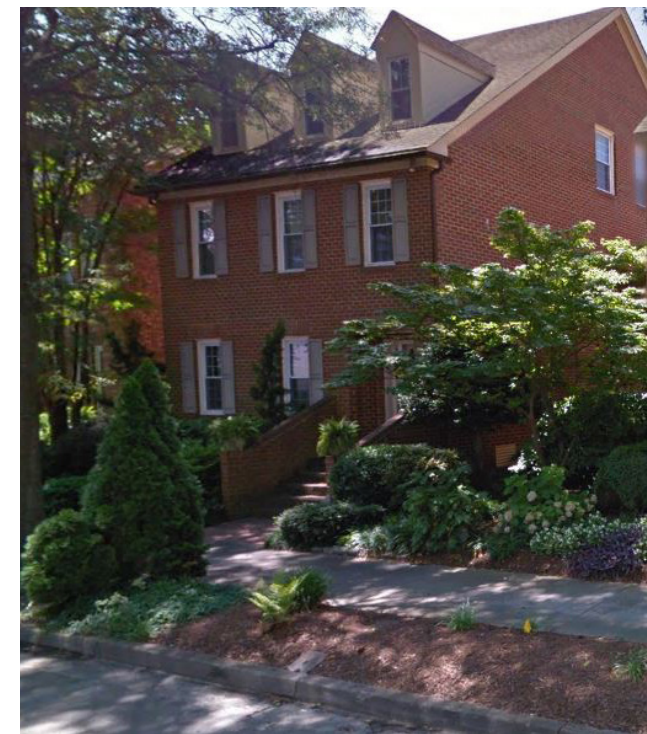


Figure 2.19 Location of Zone 4A



Open Space



Architectural Character



Additional Planting areas



Fencing & Walls



Figure 2.20 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.21 Assessment Map

Zone 4B - Mowbray Court

Zone 4B, located on the southern edge of Ghent Square, consists of brick townhomes and single-family homes (Fig. 2.22).

- ▶ Large mature trees line the streets and are scattered throughout this zone.
- ▶ Additional planting is needed in the two main parking islands to enhance these areas and provide zone cohesion.
- ▶ Screening in this zone consists largely of brick walls that match the character of the homes along with a few instances of vertical wood slat fencing.
- ▶ Flooding is a concern for most of the eastern edge of this site mainly along Mowbray Arch (Fig. 2.23).

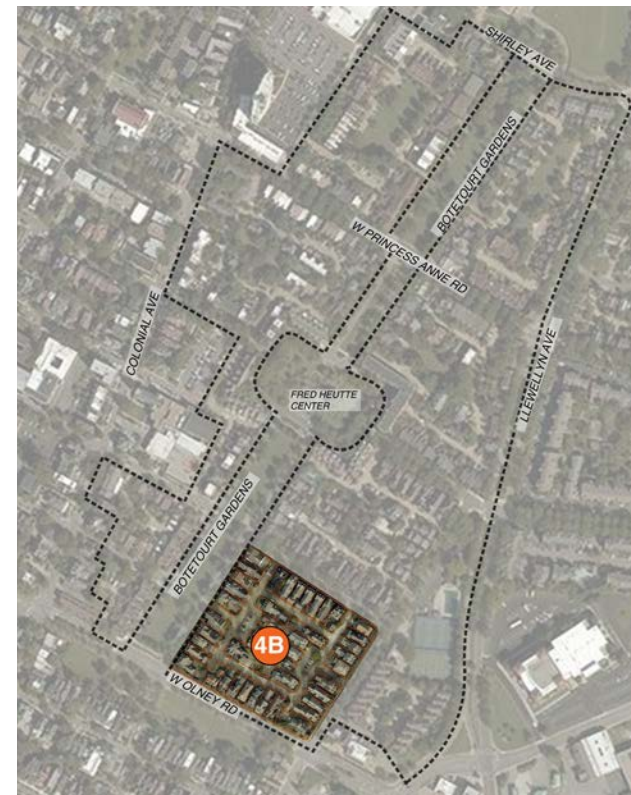


Figure 2.22 Location of Zone 4B



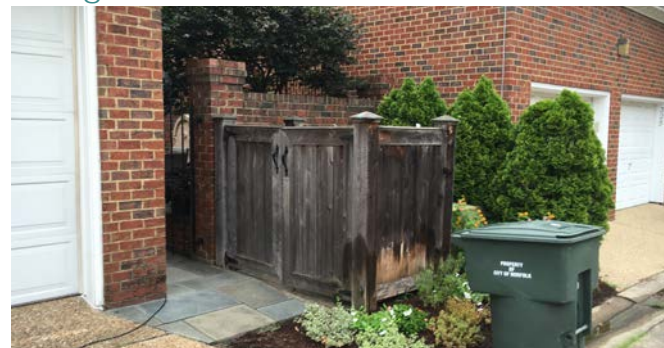
Open Space



Architectural Character



Additional Planting areas



Fencing & Walls

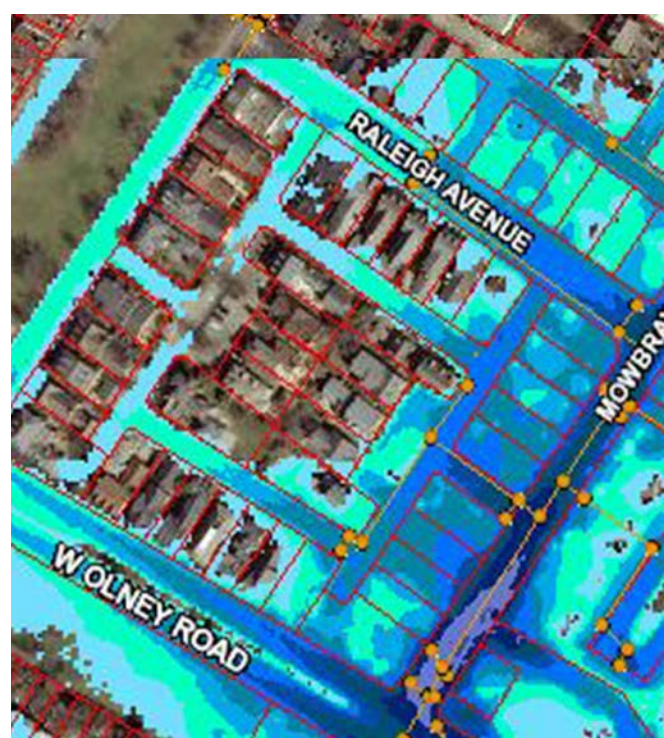


Figure 2.23 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.24 Assessment Map

Zone 5 – Recreation Center

Clubhouse and contemporary brick and siding condominiums. This zone is adjacent to the Ghent Montessori School to the south and serves as a gateway and gathering space in the community (Fig. 2.25).

- ▶ Large mature trees line Mowbray Arch and Llewellyn Avenue, though several have been lost due to storms or age.
- ▶ Updated and additional planting is needed on the north end of the recreation building to create a more inviting entrance.
- ▶ Around the recreation center, pool, tennis courts and playground there are overgrown and over-sheared plants.
- ▶ Plants with seasonal interest are severely lacking.
- ▶ Screening in this zone is diverse with a wide variety of vertical wood slat fencing (some with brick piers) and chain link fencing around the tennis courts.
- ▶ Flooding is a major concern in this zone along Mowbray Arch and Llewellyn Avenue (Fig. 2.26).

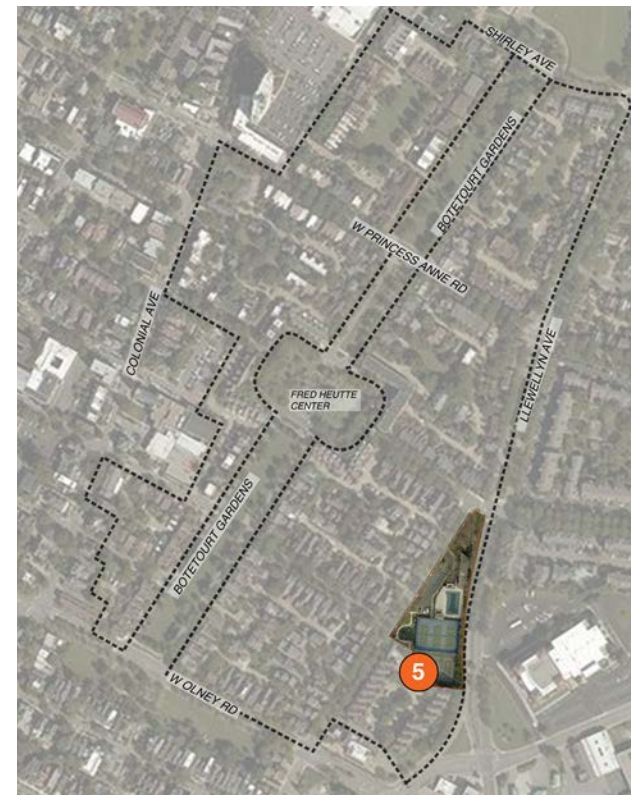
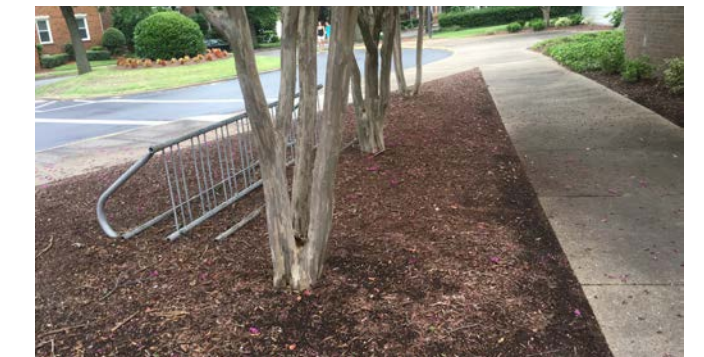


Figure 2.25 Location of Zone 5



Open Space



Architectural Character

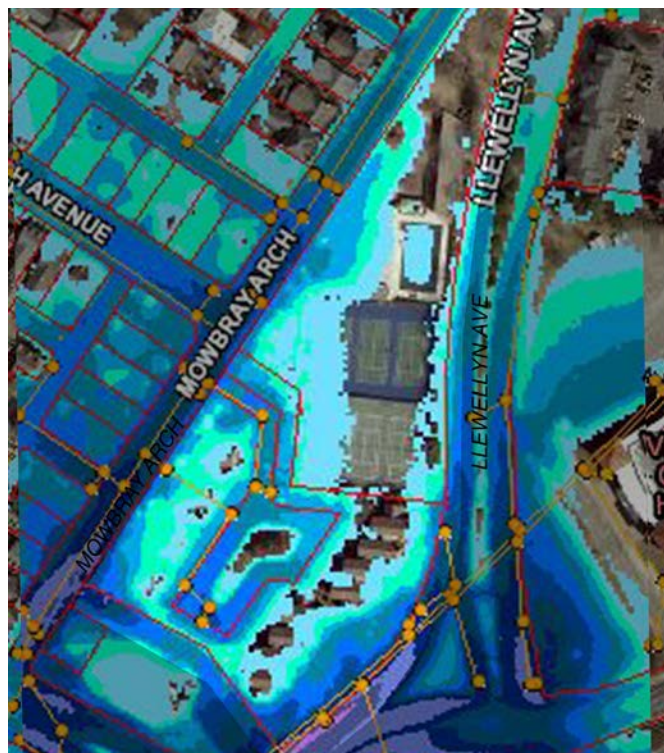


Figure 2.26 TITAN 5Ft(left) and 7Ft(right) Flood Elevation Map



Figure 2.27 Assessment Map

III

DESIGN STRATEGIES



GHENT SQUARE COMMUNITY ASSOCIATION
LANDSCAPE MASTER PLAN



ANN P. STOKES
LANDSCAPE ARCHITECTS

Section III.I Planting

Introduction

Neighborhoods, like college campuses, are remembered for the beauty of the landscape. Shaded lawns, beautiful flowering displays, trees and shrubs that gracefully frame views all contribute to memorable landscapes. With the Fred Heutte Center located in the heart of Ghent Square, the neighborhood can become a homage to his heritage with lush gardens and beautiful streetscapes. The beautification of Ghent Square through plantings will continue Heutte's vision for years to come and create a uniquely gardenesque identity for this thriving community.

Fred Heutte

The unique landscaped beauty of Ghent Square can be attributed, in large part, to the work done by Fred Heutte and the numerous garden clubs of Norfolk. Mr Heutte, a leading horticulturist and writer, not only became the City's first parks director, he also founded the Norfolk Botanical Garden and inspired many throughout Norfolk to make gardening a part of their lives.

Heutte spent his life dedicated to making Norfolk one of the most beautiful cities in the world, taking a great deal of time demonstrating how individuals could beautify the streetscape of Norfolk. He was particularly passionate about picking plants that favored Norfolk's climate.

Today, Mr. Heutte's vision for the enrichment of Norfolk through landscaping is being preserved by The Friends of Fred Heutte Foundation, who conduct horticultural education seminars and maintain the Fred Heutte Center. The Center, which is situated in the heart of Ghent Square, is housed with a historic ferry building surrounded by an arboretum and four different



Figure 3.1. The Fred Heutte Center and surrounding gardens. The building was formerly a ferry terminal building. Photo Source: Jim Walker, Virginia-Pilot

display gardens; a perennial garden, the herb knot garden, the heirloom vegetable garden and a water garden. The further beautification of Ghent Square (through planting recommendations found within this plan) will continue Heutte's vision for years to come and will build upon this uniquely gardenesque identity.

Sustainable Landscapes and Native Plants

In addition to aesthetic quality, it is critical to address the environmental problems that face the community including, but not limited to frequent flooding, subsidence, salt water intrusion, erosion, and soil compaction. There are several schools of thought regarding how to address these issues; for instance, at the city-wide scale, a solution might look like raising, reinforcing and extending an existing floodwall. But what can residents of the Ghent community do to help mitigate this onslaught of environmental nuisances and disasters? No solution is universal, but one of the best ways for a community to address these challenges is by growing and maintaining sustainable landscapes on their property.



Plant Concept Images

Planting Typologies

In the following section, a small sampling of plants has been identified to accommodate potential site conditions and/or aesthetic goals. The categories have been delineated to illustrate the importance of planting species in their proper place (i.e. habitat/site condition.) Plants that are well suited to their site establish quickly, have a healthy root system and are better equipped to withstand insect damage or disease.

Note: all species will be identified by the scientific name followed by the common name.

Perennial Color

Perennials draw special attention and focus to an area through their colorful display. Use color at locations such as entries and gathering areas.



Rudbeckia hirta 'Indian Summer'
Indian Summer Black-Eyed Susan

Great Examples of Colorful Perennials

- ▶ Sun (6 or more hours of sun during the day)
 - Geranium x 'Rozanne' (Hardy Geranium)
 - Hemerocallis 'Lady Elizabeth' (Daylily)
 - Iris germanica 'Immortality' (Germanic Iris)
 - Iris siberica 'Caesar's Brother' (Siberian Iris)
 - Leucanthemum x superbum 'Becky' (Shasta Daisy),
 - Nepeta faassenii 'Walker's Low' (Catmint),
 - Phlox subulata 'White Delight' (Moss Phlox),
 - Rudbeckia hirta 'Indian Summer' (Black-eyed Susan),
 - Salvia leucantha (Mexican Sage) &
 - Verbena bonariensis (Buenos Aires Verbena).
- ▶ Shade (less than four hours of sun)
 - Acanthus mollis (Bear's Breech),
 - Ajuga reptans 'Chocolate Chip' (Ajuga),
 - Chrysogonum virginianum (Green & Gold),
 - Helleborus niger 'Jacob' (Lenten Rose) &
 - Polygonatum odoratum variegatum (False Solomon Seal).

Ground Covers

Ground Covers are low growing plants that help prevent soil erosion and minimize maintenance. Use ground covers in areas where grass is difficult to grow or maintain. They can also be used for steep slopes, shady areas under trees, underplantings in shrub borders and areas where tree roots grow close to the surface.

Great Examples of Ground Covers

- ▶ Sun - 6 or more hours of sun during the day
 - Juniperus conferta 'Blue Pacific' (Blue Pacific Juniper), Rosmarinus officinalis 'Prostratus' (Prostrate Rosemary).
- ▶ Shade - (less than four hours of sun)
 - Ajuga reptans 'Chocolate Chip' (Ajuga), Liriope spicata (Monkey Turf), Ophiopogon japonicus (Mondo Grass), Pachysandra terminalis (Pachysandra)

Low Maintenance Shrub Massing

Shrub masses create clean, simple lines maximizing impact and minimizing maintenance. They should be used to create appropriate scale within a space and direct views. When proper mature height is selected, maintenance is minimized.

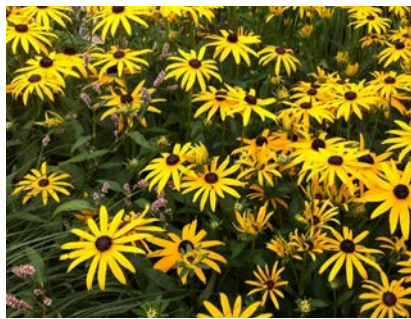
Great Examples of Low Maintenance Shrubs

- ▶ Sun
 - Callicarpa Americana (Beautyberry), Clethra alnifolia (Summersweet), Deutzia gracilis (Deutzia), Hydrangea paniculata 'Limelight' (Limelight Hydrangea), Ilex vomitoria 'Nana' (Dwarf Yaupon Holly), & Itea virginica 'Little Henry' (Sweetspire).
- ▶ Sun to Shade
 - Azalea x 'Delaware Valley White' (Azalea), Hydrangea arborescens 'Annabelle' (Annabelle Hydrangea), Hydrangea quercifolia 'Pee Wee' (Dwarf Oakleaf Hydrangea), Leucothoe axillaris (Coastal Leucothoe) & Hydrangea macrophylla 'Blue Wave' (Blue Wave Hydrangea)
- ▶ Shade
 - Sarcococca hookeriana humilis (Sweetbox), Callicarpa Americana (Beautyberry), Clethra alnifolia (Summersweet), Deutzia gracilis (Deutzia).

Moderately Salt Tolerant

Use these plants in areas that are subject to occasional flooding. These plants can withstand, without significant adverse effects, moderate concentrations of salt water on its leaves or in the soil within reach of its roots. If the water the soil contains between 6 - 12 grams of salt per liter, the soil is said to be moderately saline.

Perennial



Rudbeckia fulgida
Orange Coneflower

Shrubs



Fatsia japonica
Japanese Aralia

Tree



Styrax japonica
Japanese Snowbell

Great Examples of Moderately Salt Tolerant Species

- ▶ Perennials
 - Aster, Echinacea (Coneflower), Cyrtomium falcatum (Holly Fern), Gaillardia (blanket Flower), Hibiscus moscheutos (Swamp rose-mallow), Hosta (Plantain Lily), Kosteletzkya virginica (Salt Marsh Mallow), Rudbeckia hirta, Rudbeckia fulgida (Black-eyed Susan) & Solidago (Goldenrod)
- ▶ Shrubs
 - Aucuba japonica (Aucuba), Ilex glabra (inkberry), Azalea 'G.G Gerbing' (Azalea), Clethra alnifolia (summersweet), Fatsia japonica (Fatsia), Hydrangea macrophylla 'Blue Wave' (Blue Wave Hydrangea), Leucothoe axillaris (Coastal Leucothoe) & Viburnum prunifolium (Blackhaw)
- ▶ Trees
 - Lagerstroemia indica 'Natchez' (Natchez Crepe Myrtle), Magnolia grandiflora 'Little Gem (Little Gem Magnolia), Magnolia virginiana (Sweetbay Magnolia), Styrax japonicus (Japanese Snowbell) & Vitex agnus castus (Chaste Tree).

Highly Salt Tolerant

These plants can withstand, without significant adverse effects, high concentrations of salt water on their leaves or in the soil within reach of its roots. The salt concentration in the water extracted from a saturated soil defines the salinity of the soil. If the water contains more than 12 grams of salt per liter, the soil is said to be highly saline. Use these plants in areas that flood during a storm since often the rain water blends with surging tidal waters.

Groundcover



Ophiopogon japonicus
Mondo Grass

Shrubs



Ilex glabra
Inkberry Holly

Trees



Quercus virginiana
Live Oak

Great Examples of Highly Salt Tolerant Species

- ▶ Groundcover
 - Euonymus fortune (Wintercreeper Euonymous), Juniperus conferta 'Blue Pacific' (Blue Pacific Juniper), Liriope spicate (Monkey Turf), Ophiopogon japonicus (Mondo Grass) & Rosmarinus officinalis 'Prostratus' (Prostrate Rosemary).
- ▶ Shrubs
 - Ilex vomitoria 'Nana' (Dwarf Yaupon Holly), Rosa rugosa (Shrub Rose), Rosmarinus officinalis (Rosemary), Ilex glabra (Inkberry) & Myrica cerifera (Wax Myrtle)
- ▶ Trees
 - Celtis occidentalis (Hackberry), Juniperus virginiana (Eastern Red Cedar), Quercus michauxii (Swamp Chestnut Oak), Quercus Phellos (Willow Oak), Quercus virginiana (Southern Live Oak) & Taxodium distichum (Bald Cypress).

Low Evergreen Shrub Hedge

Low evergreen hedges define areas without blocking views and are ideal for borders and pathways. Low hedges along sidewalk edges discourage foot traffic through lawns where excessive cut throughs are a problem.

Great Examples of Low Evergreen Shrubs

- Azalea x 'Delaware Valley White' (Azalea),
- Ilex vomitoria 'Nana' (Dwarf Yaupon)
- Ilex glabra 'Gembox' (Gembox Inkberry)

High Evergreen Shrub Hedge

Tall evergreen hedges screen less desirable areas such as mechanical units, maintenance areas, unsightly fences or parking lots. They also define a specific area such as gathering spaces.

Examples of High Evergreen Shrubs

- Aucuba japonica 'Variegata' (Aucuba)
- Camellia japonica 'Leucantha' (Camellia)
- Camellia sasanqua 'Kanjiro' (Sasanqua)
- Fatsia japonica (Fatsia)
- Gardenia jasminoides 'August Beauty' (Gardenia)
- Ligustrum japonicum (Glossy Privet)
- Podocarpus macrophylla (Podocarpus)
- Prunus laurocerasus 'Schipkaensis' (Skip Laurel)

Evergreen Screen Trees

Screen trees hide unsightly views. They minimize the visual impact of storage and utility areas.

Great Evergreen Screen Trees

- Magnolia grandiflora 'Little Gem' (Little Gem Magnolia)
- Magnolia virginiana' (Sweetbay Magnolia)

Focal Point Planting

Use focal point trees in areas of high visual importance such as intersections, entries or gathering areas. These trees provide high visual interest and impact through ornamental flowering, branching form, fall color and interesting bark.

Great Focal Point Plants

- Acer palmatum (Japanese Maple), Cercis canadensis (Eastern Redbud), Cornus kousa (Kousa Dogwood), Halesia carolina (Carolina Silverbell), Lagerstroemia indica 'Natchez' (Natchez Crepe Myrtle), Nyssa sylvatica (Blackgum), Prunus 'Yoshino' (Yoshino Cherry), Styax japonica (Japanese Snowbell), Vitex agnus castus (Chaste Tree)

Canopy Trees

Canopy trees create the dramatic experience of driving and walking under high arching canopies. A mature canopy of street trees planted between the street right of way and sidewalk contributes immensely to the quality of the street environment for cars, pedestrians, bicyclists and neighbors. A simple street tree palette will unify the neighborhood. Canopy trees also help reduce storm water runoff, reduce air pollution and moderate temperatures.



Great Canopy Tree Species

- Celtis occidentalis (Hackberry), Platanus occidentalis (American Sycamore), Quercus michauxii (Swamp Chestnut Oak), Quercus phellos (Willow Oak), Quercus virginiana (southern Live Oak) & Ulmus americana 'Princeton' (Princeton Elm)

Verges

The verge is the area of public land located between a property boundary and adjacent back of curb or edge of pavement. The verge provides access from the street to private and public properties and accommodates above and below-ground public service utilities. Verges typically do not provide enough root space for understory shrubs and trees to thrive. If canopy trees are already present, all uncovered mulch should be planted with shade-loving groundcovers to prevent mulch from washing out. To make the most of these small spaces, one should consider using more appropriate treatments such as turf, reliable and easy to maintain hardscapes and groundcovers or a mixture of perennials and groundcovers, taking care to not place delicate plants where they will be underfoot by passengers emerging from cars.

Essential Tips for Planting in the Verge

- ▶ All verge plants must be water and salt tolerant due to frequent flooding in this area.
- ▶ Locate all public utility services prior to digging by calling Miss Utility.
- ▶ Mature height of the plant must be considered to ensure there is no obstruction with the visibility of the motorists using the road, exiting a residential driveway or climbing out of a car.

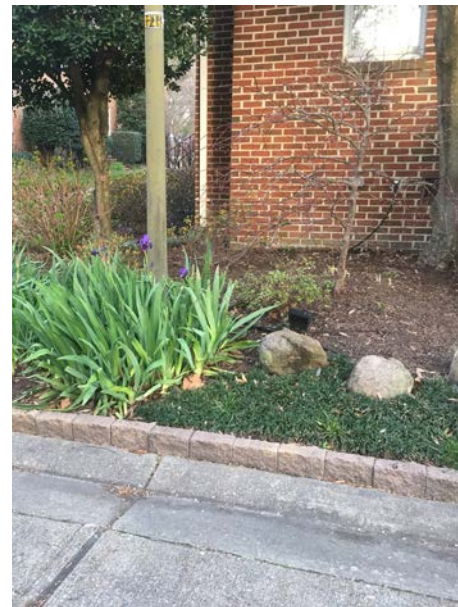
- ▶ Do not use gravel in the verge as it can end up clogging the stormwater system. Larger stone (min. diameter of 3-5") is acceptable.
- ▶ Take steps to prevent mulch from washing into the gutter and eventually into the stormwater system.

Verge Maintenance

The homeowner is responsible for any verge garden adjacent to their property. The City is responsible for maintaining or removing all street trees in the verge, but all other maintenance responsibilities are the homeowners. Turf in the verges will be the easiest for the homeowner to maintain, unless canopy trees are mature and have shaded and 'rooted' out the ground. The residents will need to keep these areas weed free. For a more gardenesque feel with minimal maintenance required homeowners are to use dependable groundcovers (i.e. *Liriope spicata*, *Ophiopogon japonicus*). For the most extensive planting of groundcovers and perennials the homeowners need to anticipate a great deal of maintenance. These verge plantings will require continuous maintenance. Well maintained verges create a clear sense of place and strengthen the cohesive look of Ghent Square.



Low maintenance, high visual interest. Very successful



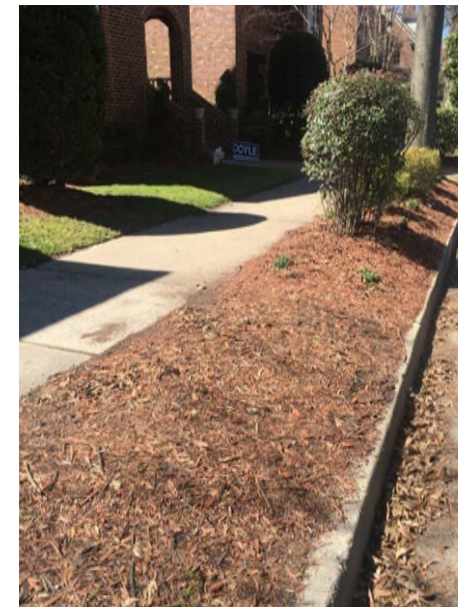
Great mix of low planting and large stone, well maintained, high visual interest



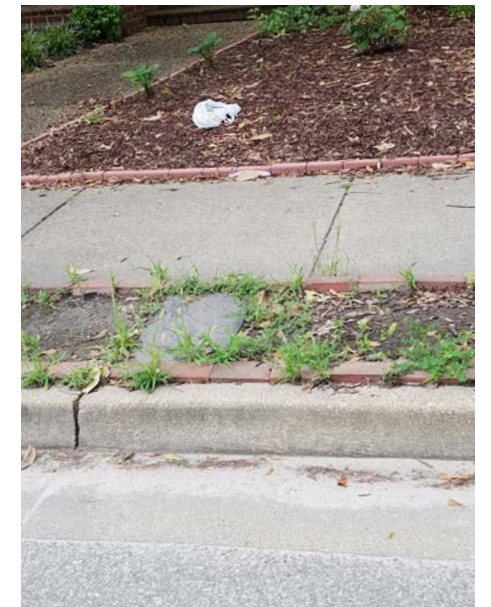
Well maintained, lush groundcover and low plantings with stone to prevent mulch wash out. Larger stone is acceptable but must be a minimum 3-5" diameter stone, otherwise DO NOT use stone/gravel in verges.



Important to maintain a low planting height on corners to ensure safety of drivers and pedestrians.



Mulch washes out easily with no edging. Shrub is much too high, will interfere with car doors opening. Mound should be reduced and low growing plants should be installed.



Poorly maintained, no visual interest. Existing stone could remain but would need to be planted with a groundcover.

Ghent Square Verges

Maintenance

The importance of Landscape Maintenance

There is a saying that anything worth doing is worth doing well. This is indisputably true in the landscape. A planting bed full of perennials, shrubs and trees, no matter how attractively laid out, will only have a positive impact on the character of a neighborhood if it is well maintained. In fact, “messy” landscape beds can have the opposite effect, making an area look neglected and unsightly. Maintenance resources are not typically infinite in scope, schedule or budget. Therefore, this master plan focuses planting beds in two main areas: those of high visual impact (at the terminus of long views or frequently trafficked areas), and areas where the plants serve a special function (screening negative views, absorbing stormwater, creating an edge to an open space, drawing attention to entrances and gateways.) To conserve maintenance resources, planting beds should be limited to highest impact locations.

Plant maintenance issues Identified at Ghent Square

- ▶ The lawns of Ghent Square exhibit symptoms of stress and decline due to multiple issues such as consistent flooding, steep grades, animal urine, and soil compaction. Symptoms include bare patches of earth, eroding soil, weed invasion, and brown/dead patches of lawn.
- ▶ Planting beds throughout the neighborhood also show signs of maintenance flaws such as overgrown plants, over-pruned plants, over-mulched beds, dead plants, highly flourishing weeds.
- ▶ Shrubs found throughout Ghent Square are also suffering from various stressors. For example, some shrubs are so excessively sheared that they look thin and bare, while others are overgrown, obstructing sight lines. These issues are often due to the wrong size shrub selected for the location. When a shrub gets too large for a space, excessive shearing seems like a reasonable strategy. Unfortunately, Over-shearing makes shrubs more susceptible to disease, and more likely to die prematurely. Mature height and width must be considered when selecting shrubs. Shrubs whose mature height and width fit within the available space will not need shearing. Occasional pruning to remove deadwood will suffice.
- ▶ Most of the trees on site look healthy and vigorous. Replacing dead trees, removing dead branches and ensuring that canopy trees (large trees) are limbed up to a height of at least ten feet are important to a well-maintained appearance.



Bare patch in turf



Overgrown shrubs and weeds



Dead trees replaced in a timely manner



Excessively sheared shrubs



Frequent pruning required to maintain size and shape and weed growth



Limbing up trees

Ghent Square Maintenance Issues

Maintenance Strategies and Tips

Watering

Issues such as dead annuals and perennials, and bare patches of turf could be a result of insufficient watering. Since herbaceous perennials grow back from the roots every year, it is important to encourage healthy, deep roots. Proper watering promotes good root development. Make sure that all the roots are reached when watering. When watering, moisten the entire bed thoroughly but do not water so heavily that the soil becomes soggy. After watering, allow the soil to dry moderately before watering again. Alternatively, too much water can cause plant and turf areas to become muddy and suffer root rot. Careful observation of each area must be done to determine if water reduction or increase is an appropriate strategy. Any new planting beds or turf areas should be planted with drought tolerant species such as those in Section III.I Plant Palette. These plants only require watering during the first 18 months of establishment, or during severe drought.



Watering Ligularia japonicum (Leopard Plant)

Integrated Pest Management

Managing pests such as weeds and insects requires persistence but it is necessary if you want to maintain the health of the planting bed or garden. Many weeds compete with desirable plants for sun and water resources, and typically have an unsightly appearance. Insects also degrade the health of desirable plants and will eventually wipe out entire plant communities if not addressed.

The best way to address these pests is through a program called Integrated Pest Management (IPM), which is an environmentally sensitive approach to pest management that relies on a combination of common-sense practices. The IPM program strives to manage pest damage “by the most economical means, and with the least possible hazard to people, property, and the environment.”

An Integrated Pest Management program should be developed and followed closely, especially during the establishment of new beds.

There are four main steps to an IPM plan:

- ▶ Set Action Thresholds. Establish a threshold at which pest control action is necessary. Sighting a single pest does not necessarily require action.
- ▶ Monitor and Identify Pests. Monitor frequently, new pest problems are easier to address in early stages of growth. This should include also correctly identifying pests and determining whether it requires control or removal. *Not all insects and weeds are detrimental, some are quite beneficial.
- ▶ Prevention and Exclusion. Prevent the pest from establishing and prevent further colonization by eliminating the conditions that the pest needs to survive. Research its biology and life cycle to determine best control measures.
- ▶ Control. If pest control is deemed to be required by the previous three steps you must consider the proper control method
 - Manual and Mechanical Techniques
 - i. Pulling (weeding) and cutting can be used to control some invasive plants, particularly if the population is relatively small. These techniques can be incredibly specific, targeting damage to the undesirable plants and animals, but they also tend to be more labor and time intensive.
 - ii. Non-toxic and Homemade solutions to deter pests.
 - Chemical Techniques. Herbicide and Pesticide use should only be used when necessary, considering the use of chemicals adversely affects the wildlife population and water quality.

Pruning and Mowing

Pruning can be time and labor intensive. The right plant for the right place will reduce the demand for pruning on a maintenance regime. Careful attention must be given to the eventual mature tree and shrub size during plant selection in planting design. When the appropriate mature size is accounted for, tree and shrub pruning frequency can be reduced to annually or every other year. For trees, the primary pruning issue should be in ensuring canopy trees stay limbed up a minimum of ten feet for visibility, and removing dead or diseased trees or limbs. Existing shrubs that are overly sheared because they are too large for the space, should be phased out over time and replaced with plants more appropriate to the space. Replacing single species hedges with hedges that incorporate several shrub species improves long term landscape resiliency. As a rule, shrubs that bloom in the spring benefit from pruning after they have flowered. Shrubs that bloom in the summer should be pruned in the winter. By trimming them back they'll grow more slowly. The slower a shrub grows the thicker and better it will look.

Mowing is another common maintenance practice, particularly useful to control types of species present in grassland ecosystems. Mowing must be timed appropriately to minimize habitat impacts, especially to nesting birds. For example, mowing performed in late winter/early spring (between March 1 and April 1) is ideal because it does not disrupt species life-cycles.

On the other hand, if the goal is to control woody species, it is best to mow in mid-July through early August. This will encourage the perpetration of warm season grasses (which will rebound quickly after mowing) and this will not harm nesting birds since the young will have already left the nest. Note that mowing later than early August provides too little time for grasses to recover prior to winter.

Replacement

Replacing planting or mulch beds with turf areas is recommended in areas where plants are struggling to survive, and have low visual priority. Refer to Section III Zone Specific Design for recommendations on lawn and bed locations and planting schemes. Replacing dead trees in a timely manner allows the mature tree street canopy to continue its life cycle in a natural progression. In some lawn areas where steep slopes contribute to erosion, regrading and new sod of the area is recommended.

Fertilizer Use

The over use of fertilizers for lawn and garden upkeep is a ubiquitous problem throughout America and has long been considered a major source of pollution to the Nation's water-bodies (particularly to the Chesapeake Bay). Proper plant choice will reduce or eliminate the need for fertilizers. "If you've chosen plants that are adapted to the soil, site, and climate, once rooted in the plantings [they] won't need such artificial assistance...Dumping extra and unnecessary resources into a garden ecosystem invites invasion by those garden opportunists, weeds." (Garden Revolution, Larry Weaner p.17)



Reducing Fertilizer use Saves Time and Money

Mulched Areas

Mulch is a very common feature of contemporary North American landscapes, but that doesn't mean it should be promoted or encouraged thoughtlessly. Mulch can provide many benefits by retaining soil moisture, regulating soil temperatures and reducing weed growth. However, there are also many problems that can accompany the over use of mulch. For example, mulch is cited to effectively suppress certain weeds but not more aggressive ones like the Japanese Knotweed. Furthermore, weed seeds and pests like the Emerald Ash Borer may be brought onto a site in costly mulch and may inhibit germination of desirable species. Improper installation of mulch also has its drawbacks, for example mulch piled up around the base of a tree invites moisture and fungi, and uncovered mulch tends to erode and wash out.

Tips

- Reduce mulched areas as much as possible – instead create a dense ground cover plant layer and more dense planting in general
- Mulch should only be purchased from sources known to be free of toxins and pests
- Use Alternative sustainable types of mulch such as leaf litter



Use On-site Leaf Litter as a Mulch Substitute

Fun Fact about leaf litter

Leaving leaf litter and other garden debris on the ground helps keep the soil moist and dark, creating the ideal habitat for Fireflies. Firefly larvae feed on slugs, snails, worms and other critters that live in damp environment.



Plant Palette

The proposed plant palette offers a broad range of plants suited to diverse conditions. Plant diversity must be balanced against plant repetition in each planting design in the community.

Repeating the same plants in the planting beds throughout the community creates echoes of the same or similar blooms, leaf color and foliage texture. These repeated elements unify the neighborhood and signal to residents and visitors the extents of the community and a sense of ownership.

Balanced against this need for cohesion in the plant palette is the need for plant diversity. All plants are susceptible to pests and diseases and environmental condition changes such as climate, temperature and rainfall. When adversely affected by one of these factors, a single species can be devastated within a few years, such as Dutch Elm Disease did in the past. By diversifying your plant selection, if one plant species dies, the rest of the design survives, reducing the need for total plant replacement in a single area. Diverse plant palettes increase long-term resiliency.

Diversity is particularly important when planting woody plants such as trees and shrubs which take years to mature. We recommend avoiding monoculture plantings of street trees and hedges. Instead, our designs (shown in Section III Zone Specific Design) mix several shrubs in a single hedge, and mix different species of canopy and understory trees in a single planting bed or area. Repetition in plant selection is better suited to perennials which grow quickly and can be more easily replaced. Using the same several perennials throughout an area or planting bed will create the desired cohesion through bloom, and foliage.

Finally, the availability of plants, particularly perennials, change from year to year. Some plants listed in these palettes may become difficult to find in years to come. In these cases, select plants with a similar flower color and plant form suited to similar conditions. This allows the cohesion throughout the neighborhood to remain for years to come while at the same time enhancing plant diversity.

Chocolate Chip Ajuga (Bungleweed)



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Ajuga reptans 'Valfredda' / 'Chocolate Chip'	Chocolate Chip Ajuga / Chocolate Chip Bungleweed	Italy	Full sun to part shade / Medium	2"	Tiny, shiny, oval chocolate leaves (1/2" across) with burgundy highlights. Bluish-purple ajuga flowers on spikes 3" tall	Prefers moist, humusy soil with good drainage, tolerates moderately dry soils. May cut back to ground after flowering to rejuvenate foliage

Winter creeper



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Euonymus fortunei 'Kewensis'	Winter creeper		Full sun to part shade / Medium	1-3"	Lustrous dark green pea sized leaves. Sparse, small green-white flowers (June)	Provides erosion control, tolerates shade, an effective edger. Spreads easily. Tendency to be an aggressive.

Blue Pacific Shore Juniper



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Juniperus conferta 'Blue Pacific'	Blue Pacific Shore Juniper		Sun / Medium	6" -1'	Aromatic, awl-shaped, spiny-pointed, blue green needles. Noted for better blue foliage, better ground cover, denser foliage and better resistance to winter injury than parent species.	Tolerates hot dry climates, good for erosion control. Particularly effective along coasts or dunes in sandy soil.

Creeping Lilyturf



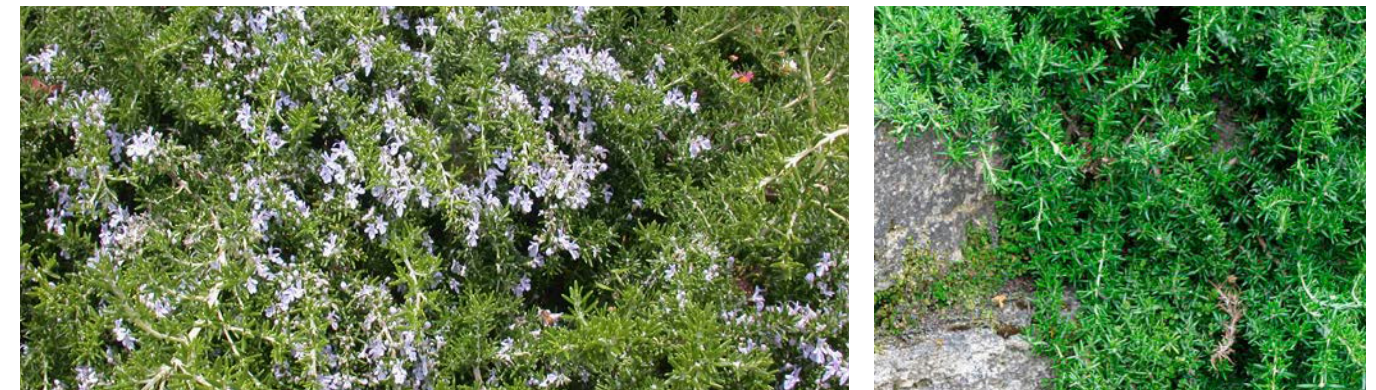
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Liriope Spicata	Creeping Lilyturf	China, Vietnam	Sun to Part Shade / Medium	1.5 ft	Turf-like growing habit, narrow glossy dark green leaves with erect lavender to white flower spikes, blooms from August to Sept	Tolerant of damp/wet areas, deer, drought, erosion and air pollution

Mondo Grass



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Ophiopogon japonicus	Mondo Grass	Japan	Sun, Part Shade / Medium	12-15"	Stemless dark green grass-like leaves. Tiny spikes of lilac flowers (summer)	Prefers rich humusy slightly acidic soil. Can withstand full shade with well-drained soils. No mowing required

Creeping Rosemary



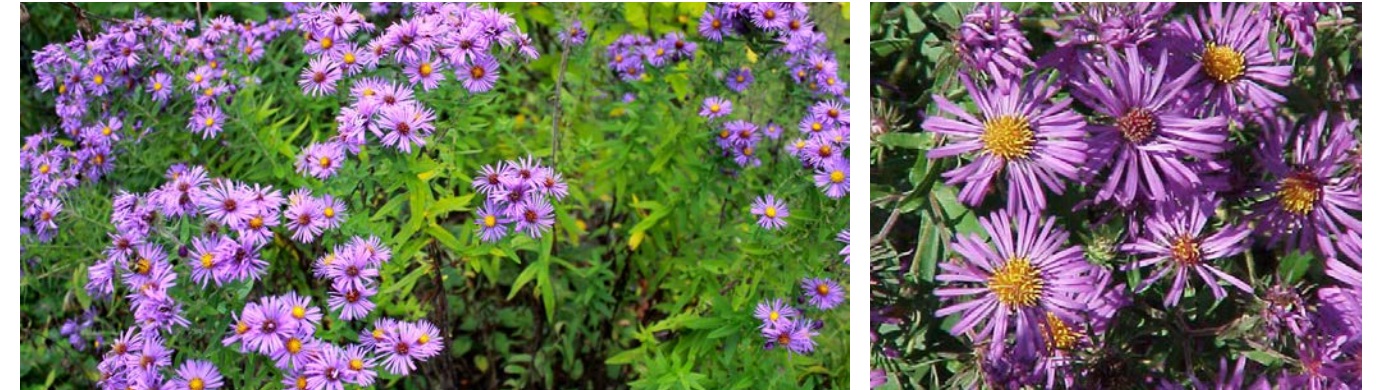
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Rosmarinus officinalis 'Prostratus'	Creeping Rosemary		Full Sun	6-12"	2" long dark green leaves, aromatic evergreen. Prostrate habit and attractive flowers.	Should be kept moist in well drained soil and full sun

Bear's Breeches



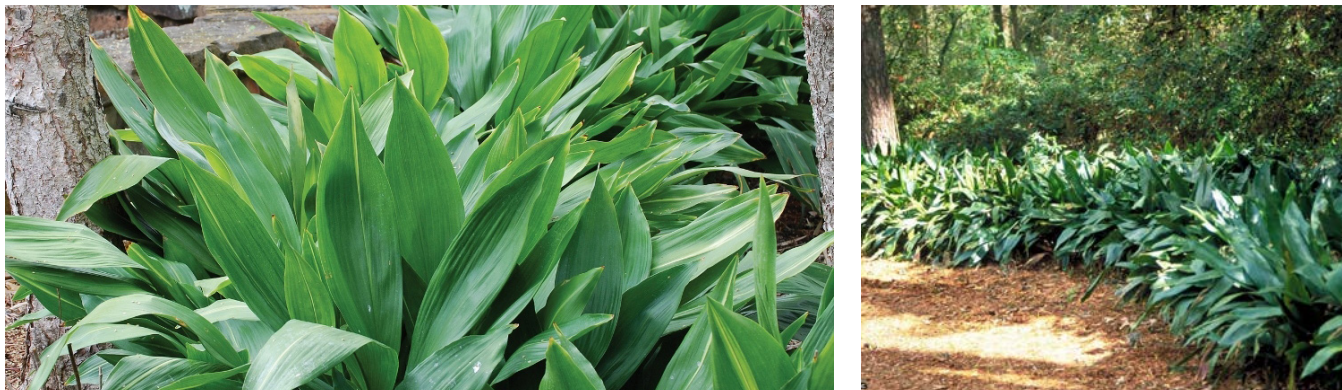
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Acanthus mollis	Bear's Breeches	Southern Europe, northwestern Africa	Sun, Part Shade / Medium	3-5ft	Architecturally bold flower spikes. Creamy white snapdragon like flowers hooded by reddish-purple bracts. Deeply lobed, soft-spiny, glossy, dark green leaves	Tolerates poorly-drained soils. Remove flowering stalks after bloom. Can spread aggressively in loose soils

New England Aster



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Aster novae-angliae	New England Aster	Eastern North America	Sun / Medium	3-6ft	Stout, robust upright plant with daisy-like asters with purple rays and yellow centers. Rough, hairy, lance-shaped leaves.	Prefers moist, rich soils. Pinching back stems several times before mid-July will control plant height, promote bushiness and obviate the need for staking

Cast-Iron Plant



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Aspidistra elatior	Cast-Iron Plant	China, Japan	Part Shade, Full Shade	2-3ft	Arching lanceolate, glossy dark green leaves (24" long and 4" wide) small creamy-purple flowers at soil level.	Avoid direct sun best in bright indirect light. Tolerates wide range of temperatures

Japanese Painted Fern



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Athyrium niponicum pictum	Japanese Painted Fern	Eastern Asia	Part Shade, Full Shade / Medium	1-1.5ft	Triangular variegated fronds 20" long. Soft-grayish green with silvery hues accented with dark maroon midribs.	Best sited in sheltered locations, best color in light shade. Soil must not be allowed to dry out.

Green and Gold / Goldenstar



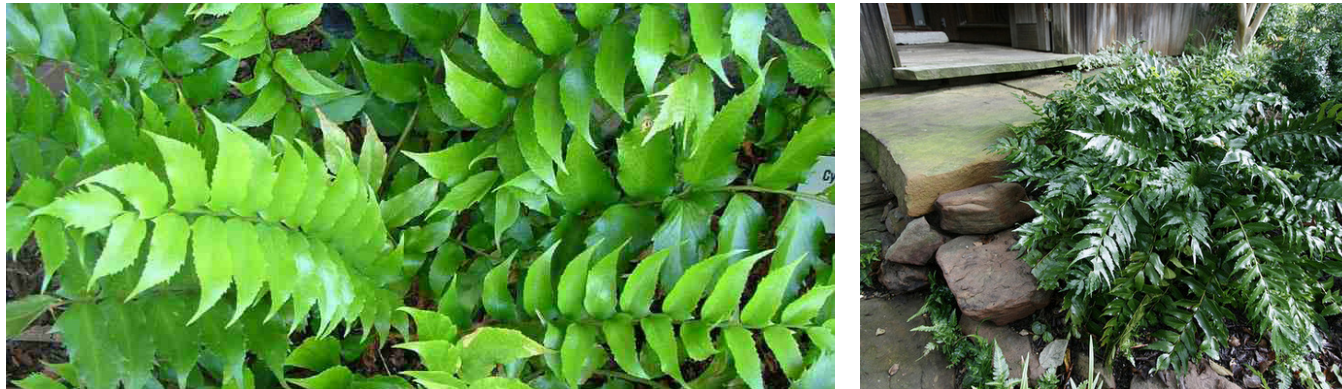
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Chrysogonum virginianum	Green & Gold / Goldenstar	Eastern North America	Part Shade, Full Shade / Wet to Medium	6" -1ft	Star-shaped daisy-like flowers with five rounded, slightly notched yellow petals and a center tuft of yellow disk flowers. Ovate, toothed, bright green leaves	Low maintenance, prefers sun-dappled part shade. Tolerates full sun if in consistently moist soils. Remove spent flowers for best groundcover appearance.

Purple Coneflower



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Echinacea purpurea	Purple Coneflower	Eastern North America	Sun to Part shade / Dry to Medium	2 to 5ft	Daisy-like purple coneflowers atop stiff stems, attracts butterflies. Goldfinches and other birds feed on seeds	Native to prairies, meadows and open woods. Tolerant of deer, drought, heat, humidity and poor soil. Blackened flower heads should not be removed; food for birds

Japanese Holly Fern



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Cyrtomium falcatum	Japanese Holly Fern	China, Japan, North and South Korea, Taiwan Vietnam	Part Shade, Full Shade / Medium	1-2ft	Ferns resemble holly branches. Arching, glossy, dark green fronds have thick leathery pinnae	Good soil drainage is essential (prone to root rot)

Rozanne Cranesbill Geranium



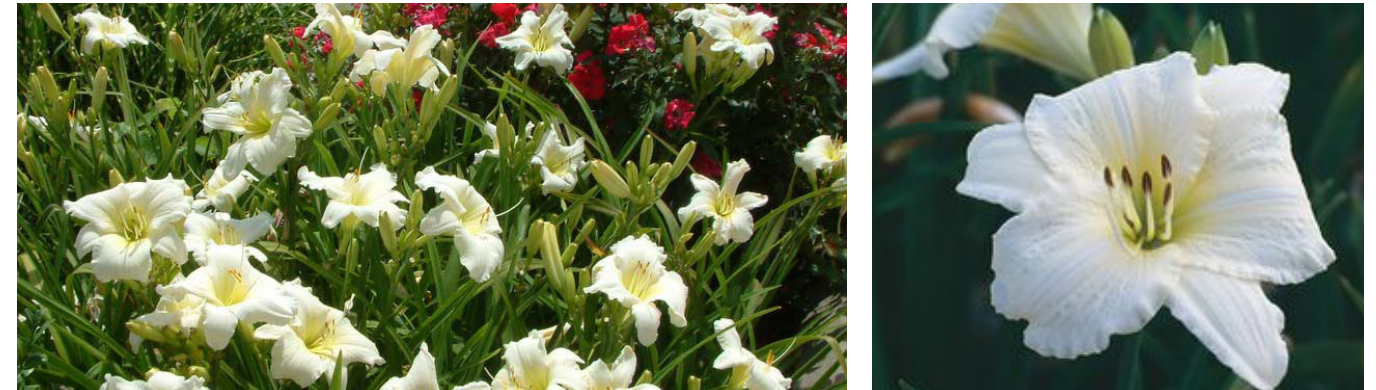
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Geranium 'Gerwat' Rozanne	Rozanne Cranesbill Geranium		Sun, Part Shade / Medium	1-2ft	Large, 5-petaled violet-blue flowers with purple-violet veins and small white centers. Deeply lobed, slightly marbled, deep green foliage.	Cultivar is especially heat tolerance and will bloom throughout summer. Side stems may be removed or trimmed to control spread.

Stinking Hellebore



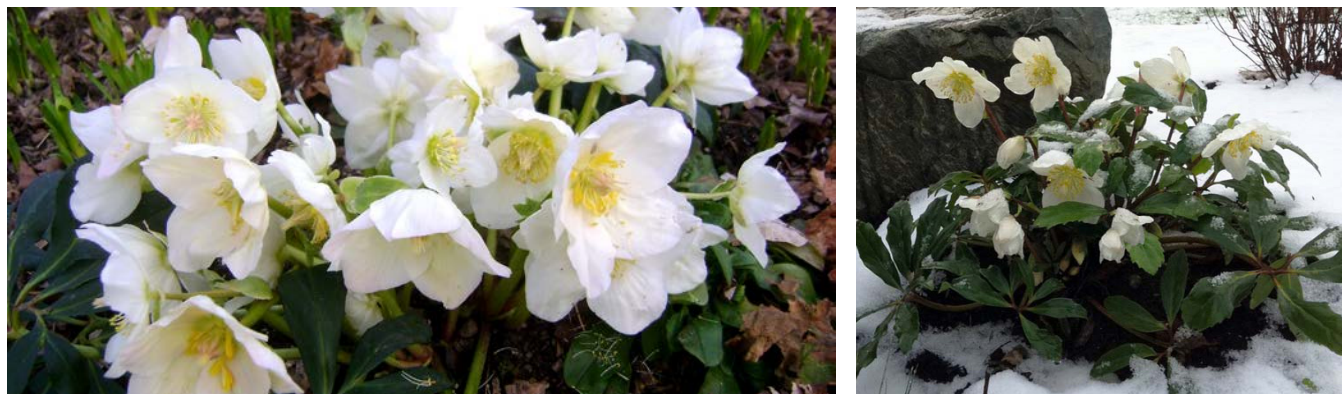
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Helleborus foetidus	Stinking Hellebore	Europe	Part Shade, Full Shade / Medium	1-2ft	Deeply lobed and divided into 7-10 lance-shaped, toothed segments. Clusters of drooping, bell-shaped, green-ish white flowers. Bruised flowers are unpleasantly aromatic.	Locate in areas protected with winter winds. Cut back flowering stems to promote new growth

Lady Elizabeth Daylily



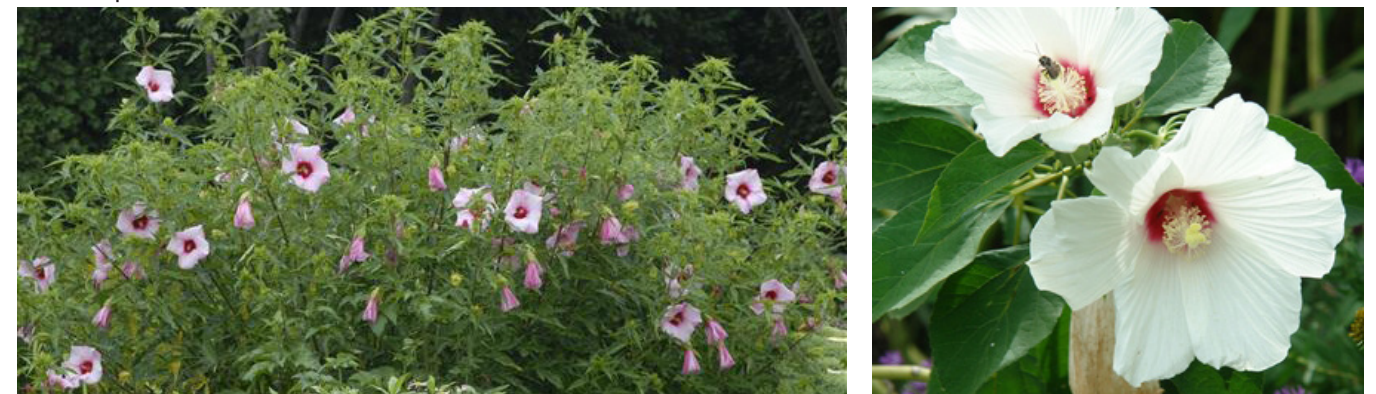
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hemerocallis 'Lady Elizabeth'	Lady Elizabeth Daylily		Sun / Medium	1.5-2ft	Large single creamy white flowers with bright green throat, slightly fragrant	Prefers deep fertile soil, tolerate heat and humidity but appreciates deep watering in dry spells. Should be divided every 3-4 years in fall or spring.

Jacob Hellebore



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Helleborus niger 'Jacob'	Jacob Hellebore		Part Shade, Full Shade / Wet to Medium	10-14"	Large, out-facing, single pure white flowers appear November -January	Prefers best in rich, humusy, moist, alkaline, well-drained soils. Keep soil moist in winter. Remove spent flower stalks to promote new growth.

Swamp Rose Mallow



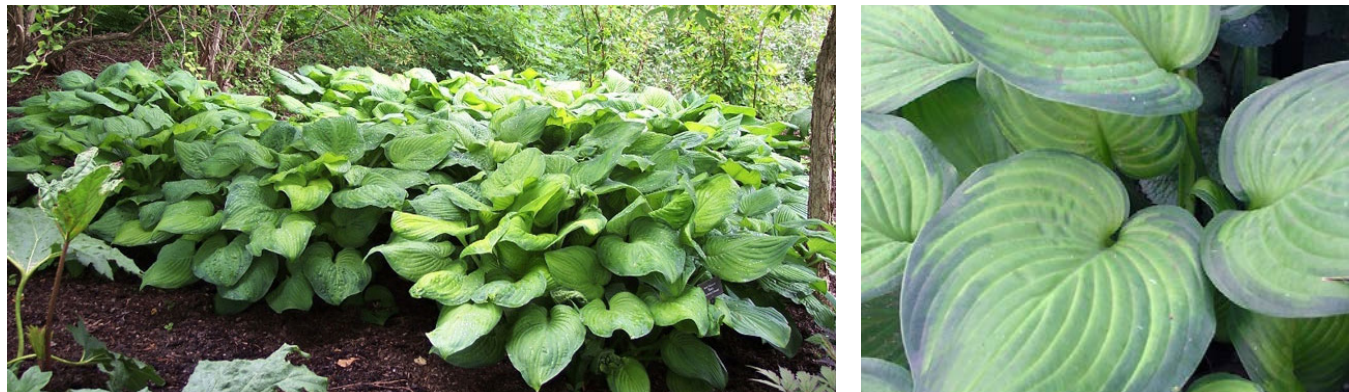
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hibiscus moscheutos	Swamp Rose Mallow		Sun, Part Shade / Wet to Medium	3-7ft	Large glabrous leaves and 5" wide flowers ranging from pink to white. Flowers last for one day.	Needs rich, moist soils in full sun. May require staking. Mulch during winter to protect roots from frost. Prune in early spring for bushier growth. Moderately salt tolerant

Francee Hosta



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hosta 'Francee'	Francee Hosta		Part Shade, Full Shade / Medium	1-2ft	Heart-shaped, dark green leaves with narrow white margins. Funnel-shaped, pale lavender flowers appear atop leafy green scapes.	Best in part shade (morning sun or dappled conditions). Established plants have some tolerance for dry shade. Never let soil dry out. Apply water directly to soil. Protect from wind.

Guacamole Hosta



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hosta 'Guacamole'	Guacamole Hosta		Part Shade, Full Shade / Medium	1-1.5ft	Leaves the color of guacamole are slightly convex, wide oval, chartreuse-gold leaves with irregular dark bluish-green margins. Leaves are glossy above.	Best in part shade (morning sun or dappled conditions). Established plants have some tolerance for dry shade. Never let soil dry out. Apply water directly to soil. Protect from wind.

Immortality Bearded Iris



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Iris Germanica 'Immortality'	Immortality Bearded Iris		Full Sun / Medium	2-3ft	White flowers (tinted with yellow) with ruffled petals bloom twice a year	Tolerates clay, sandy and loamy soils. Very low maintenance

Caesar's Brother Iris



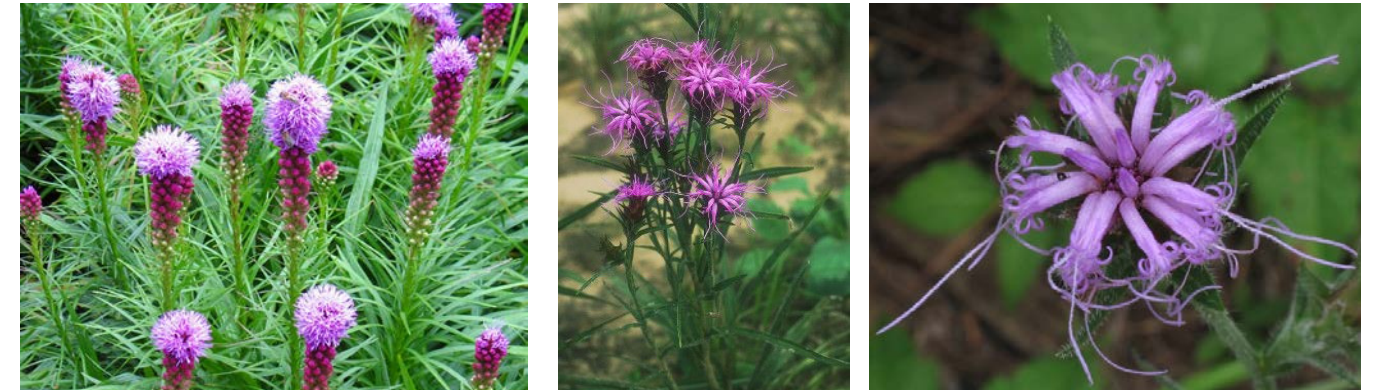
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Iris Sibirica 'Caesar's Brother'	Caesar's Brother Siberian Iris		Sun, Part Shade / Moist to Medium	3-4ft	Arching, narrow, grass-like, linear blue-green leaves. Deep purple flowers emerge in late spring on rigid stems.	Very adaptable, tolerates wide range of soils. Flowers best in full sun

Virginia Saltmarsh Mallow / Virginia Seashore Mallow



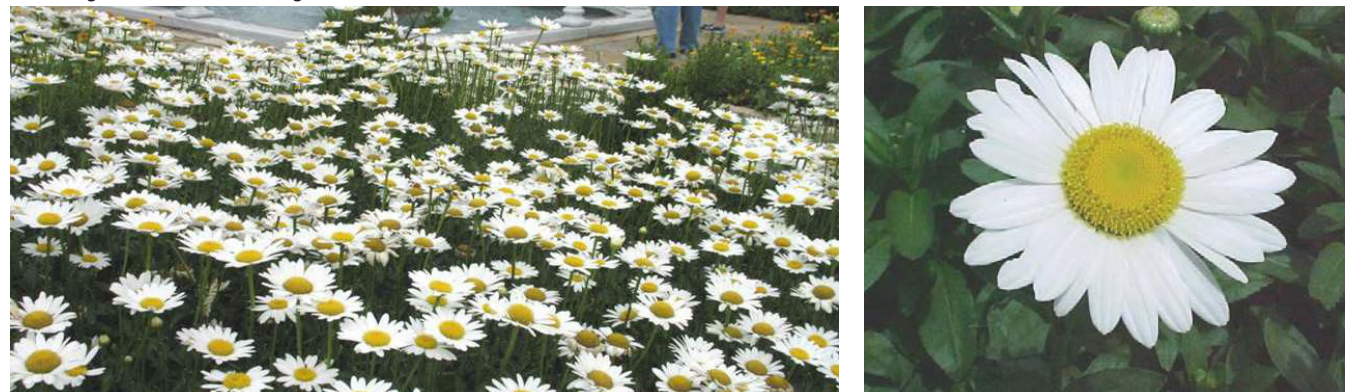
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Kosteletzkya virginica</i>	Virginia Saltmarsh Mallow / Seashore Mallow	Eastern United States	Sun / Wet to Medium	3-4 ft	Small hibiscus-like pink flowers. Leaves are gray-green and toothed. Lower leaves are maple-like and upper leaves are triangular-hastate.	Grow well in mucky soils and regularly irrigated soils. Native to salt and brackish marsh land.

Scaly Blazing Star Scaly Blazing Star / Scaly Gayfeather / Scaly Liatris



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Liatris squarrosa</i>	Scaly Blazing Star	Southeastern United States	Full Sun / Medium to Dry	1-2ft	Tufted red-violet flowers on spikes Attracts pollinators, Butterflies and Hummingbirds	Prefers sandy, loam soils and a hot and dry site

Becky Shasta Daisy



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Leucanthemum x superbum 'Becky'</i>	Becky Shasta Daisy		Sun / Medium to Dry	3-4ft	Cultivar is larger than most others, feature 4" flower heads with white rays and yellow center disks. Coarsely-toothed, lance-shaped, medium green leaves.	Low Maintenance. Good soil drainage is essential. Wet soils in winter can be fatal. Tolerates some shade. Remove spent flowers to promote additional growth

Leopard Plant



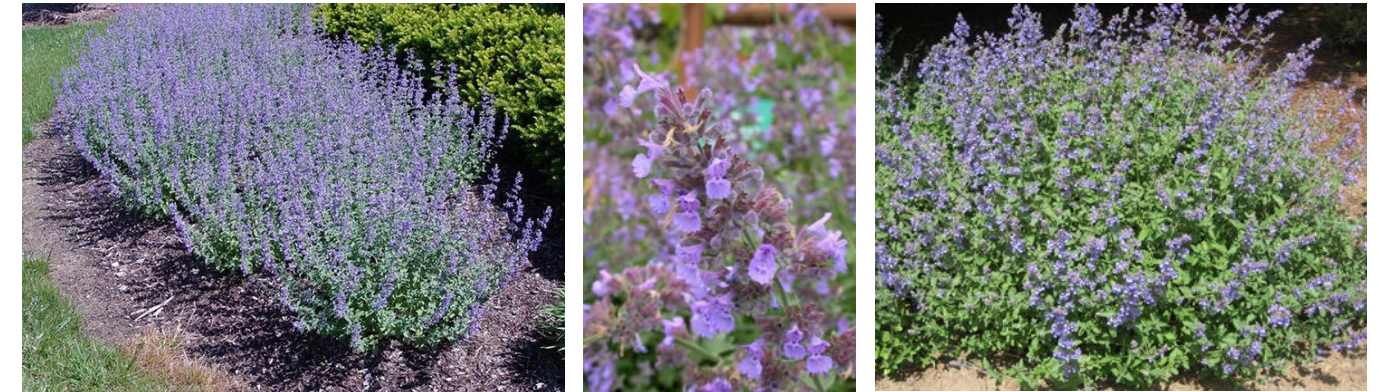
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Ligularia japonicum 'aureomaculata'</i>	Spotted Leopard Plant	East Asia	Part Shade, Full Shade / Wet to Medium	2ft	Broad, rounded 10" wide leaves with creamy yellow spots. Foliage stand on 1' long pubescent reddish stems. Daisy-like flowers bloom in late summer/fall.	Best grown in rich, humusy soils. Shelter from winds. Soil can never dry out. Good choice for rain gardens.

Ostrich Fern



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Matteuccia struthiopteris	Ostrich Fern		Part Shade, Full Shade / Wet to Medium	3-6ft	Fronds are finely dissected with feathery appearance	Best in rich soils with constant moisture, avoid windy sites.

Walker's Low Catmint



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Nepeta faassenii 'Walker's Low'	Walker's Low Catmint	Caucasus and northern Iran	Sun, Part Shade / Medium to Dry	24-30"	Showy periwinkle blue flower spikes above fragrant mounds of gray-green foliage.	Drought resistant (with time) good ground cover, also excellent for cascading off walls.

Mexican Feather Grass



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Nassella tenuissima	Mexican Feather Grass	North America	Sun / Dry	2ft	Delicate, graceful lime-green foliage, wheat-colored airy flower heads	Reseeds readily. Withstands dry compacted soil. Ideal for erosion control. Cool season grass should not be cut back in hot months.

Cassian's Choice Fountain Grass



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Pennisetum alopecuroides 'Cassian's choice'	Cassian's Choice Fountain Grass		Sun, Part Shade / Wet to Medium	2-2.5ft	Graceful spreading clumps with narrow medium-deep green leaves changing to golden yellow in fall. Showy, silvery to pinkish-white bristly, bottle brush-like flower spikes	Best in full sun, may not flower in too much shade. Cut foliage to ground in late winter before new growth appears.

Dark Towers Penstemon / Dark Towers Beardtongue



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Penstemon 'Dark Towers'	Dark Towers Penstemon / Dark Towers Beardtongue		Sun / Medium to Dry	1.5-3ft	Pale pink flowers bloom in late spring. Dark wine-red oblong to ovate basal leaves and lance-shaped stem leaves.	Some tolerance for drought, heat and humidity, prefers well-drained soils, avoid wet areas. Remove spent flowers to prolong bloom.

Variegated Solomon's Seal



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Polygonatum odoratum variegatum	Variegated Solomon's Seal		Part Shade, Full Shade /Wet to Medium	2-3ft	Showy light green leaves edge with white. New stems are tinged maroon red.	Easily grown in moist, humusy, organically rich, well-drained soils. Best in cool-sun-dappled shady areas

White Delight Mass Phlox



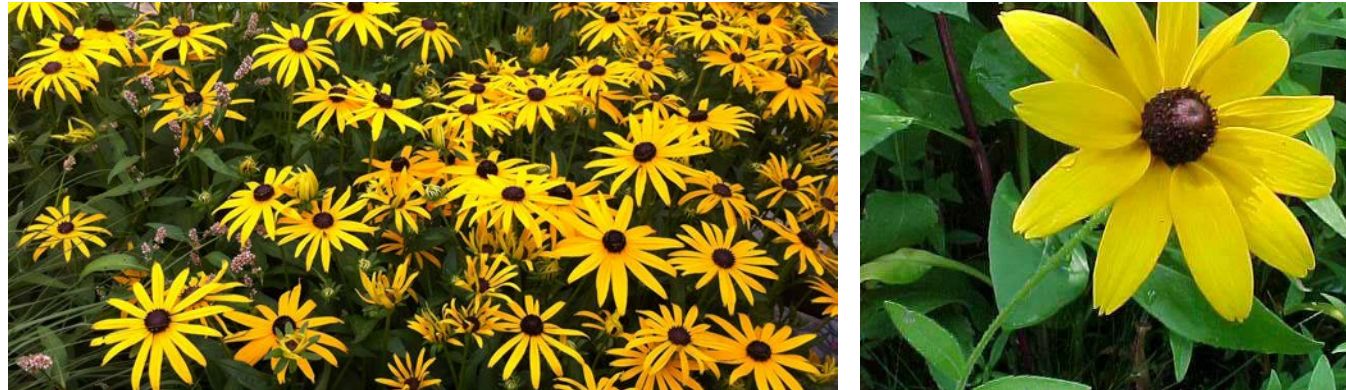
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Phlox subulata 'White Delight'	White Delight Mass Phlox		Sun . Dry	2-6"	Large snow white flowers on a mound of dark green needle-like leaves.	Prefers normal top sandy soil, drought tolerant, requires good drainage. Clip lightly immediately after blooming to encourage dense habit.

Christmas Fern



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Polystichum acrostichoides	Christmas Fern	Eastern North America	Part Shade, Full Shade / Medium to Dry	1-2ft	Features leathery, lance-shaped, evergreen fronds. Young fiddleheads in spring are silvery and scaled.	Best in organically rich, dry to medium moisture, well-drained soils

Orange Coneflower



Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Rudbeckia fulgida	Orange Coneflower	Southeastern United States	Sun / Medium to Dry	2-3ft	Features daisy-like flowers with yellow rays and brownish-purple disks. Lanceolate, medium green foliage.	Low maintenance, best bloom in full sun with consistent soil moisture. Deadhead spent flowers to encourage additional bloom.

Mexican Bush Sage



Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Salvia leucantha	Mexican Bush Sage	Mexico and tropical Americas	Sun / Medium	2-3ft	Showy bi-color flowers consisting of white corollas and longer-lasting funnel-form purple calyces. Linear lance shaped gray-green leaves borne in pairs on square stems.	Tolerates some light afternoon shade and some drought. Best in full sun with regular moisture.

Indian Summer Black-eyed Susan



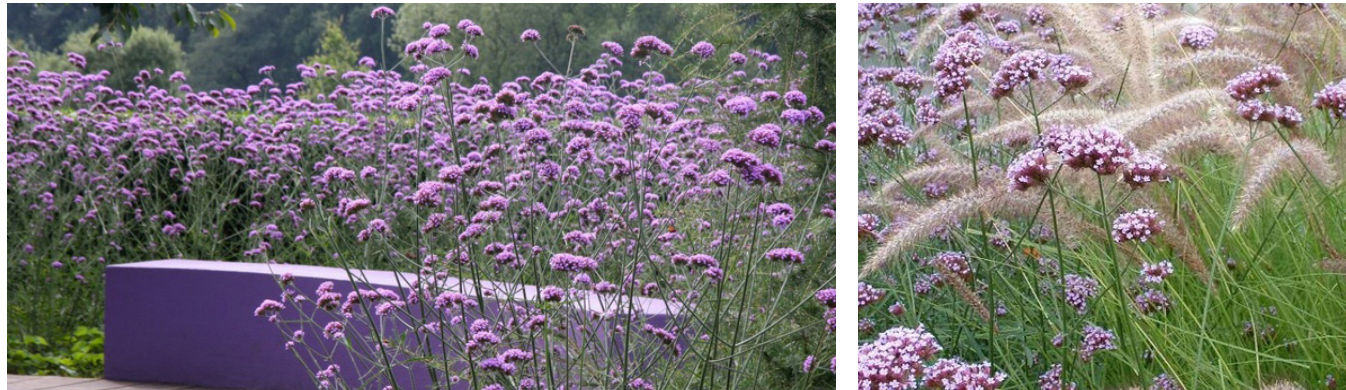
Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Rudbeckia hirta 'Indian Summer'	Indian Summer Black-eyed Susan		Sun / Medium	2-3ft	Coarse, hairy plant with daisy-like flowers (to 3" across) with bright yellow to orange-yellow rays and domes, dark brown center disks. Rough hairy lance shaped leaves.	Often grown as annual (short-lived) easily grown in well-drained, medium moisture in full sun. Tolerates heat and drought.

Goldenrod



Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Solidago gracillima	Virginia Goldenrod	Southeastern United States	Sun / Medium	2-3ft	Tiny yellow flowers	Requires adequate soil moisture

Tall Verbena



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Verbena bonariensis	Tall Verbena	South America	Sun, Part Shade / Medium	2-4ft	Serrate, lance shaped dark green leaves. Tiny rose-violet flowers rise above foliage on erect, slender, wiry 4 angled stems.	Tolerates poor soils as long as drainage is good

Delaware Valley White Azalea



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Azalea x 'Delaware Valley White'	Delaware Valley White Azalea		Part Shade / Medium	3-4ft	Tubular, funnel-shaped, usually single white flowers bloom in clusters. Oblong green leaves usually turn yellow in winter	Prefers sun dappled light, afternoon shade is acceptable. Protect from strong winds. Good soil drainage is essential.

Variegated Gold Dust Aucuba



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Aucuba japonica 'Variegata'	Variegated Gold Dust Aucuba		Part Shade, Full Shade / Medium	6-10ft	Rounded shade loving evergreen shrub. Leathery, glossy, elliptic to narrow-ovate rich green leaves. Coarse marginal teeth	Needs shade in summer (young leaves will burn in full sun). Drought tolerant when established. Avoid overly wet or moist soils. Protect from strong winds.

Beautyberry



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Callicarpa americana	Beautyberry	Southeastern United States	Sun, Part Shade / Medium	3-6ft	Loose, open shrub with insignificant flowers that develop into bright violet berry-like drupes which encircle the stem.	Prefer moist clay or sand enriched with organic matter. Fruit most abundantly in full sun.

Summersweet / Sweet Pepperbush



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Clethra alnifolia	Summersweet / Sweet pepperbush	Maine to Florida	Sun to Part Shade / Medium to Wet	3 to 8ft	White, showy fragrant flowers, Attracts butterflies and bees	Prefers moist, sandy, acidic soils. Should be pruned prior to spring growth. Tolerant of heavy shade, erosion, clay soils and wet soils

Slender Deutzia



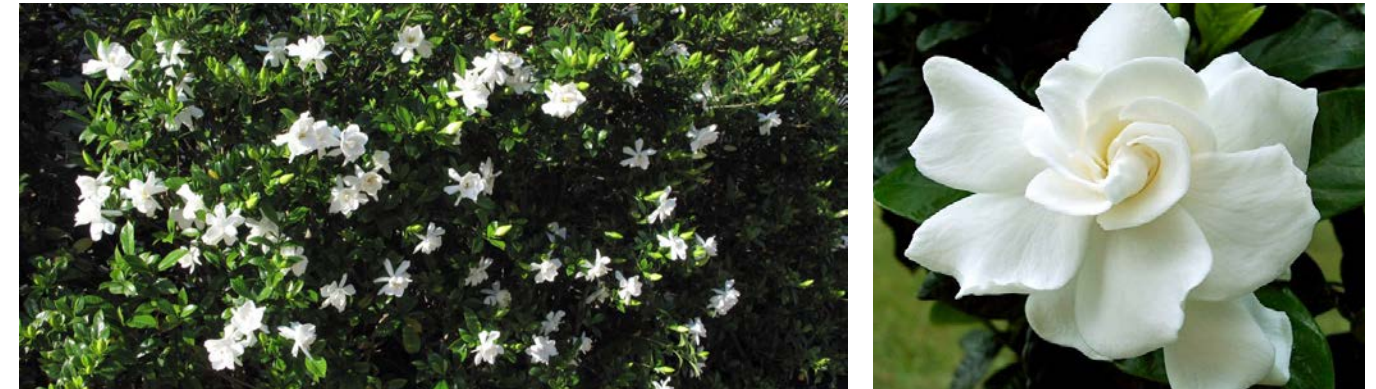
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Deutzia gracilis	Deutzia	Japan	Sun, Part Shade / Medium	2-4ft	Tiny, fragrant, bell-shaped, white flowers appear for only two weeks in spring. No fall color.	Best in well-drained, moist, humusy loams. Annual pruning of spent flowers

Japanese Aralia



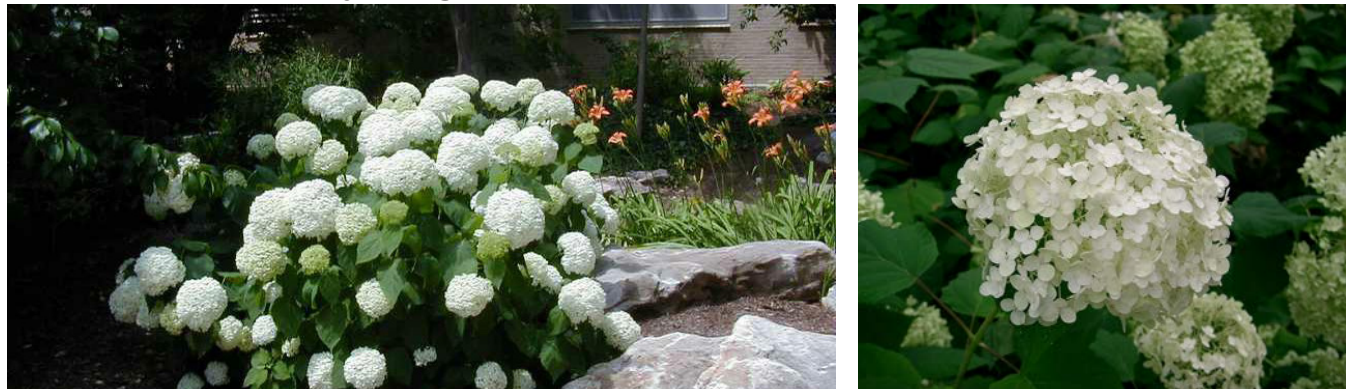
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Fatsia japonica	Japanese Aralia	Japan	Part Shade, Full Shade / Medium	6-16ft	Palmately lobed glossy dark green leaves with small creamy flowers followed by black berries.	Tolerates heavy shade and requires regular watering in summer. Does not do well in full sun or wind exposure

August Beauty Gardenia



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Gardenia jasminoides 'August Beauty'	August Beauty Gardenia	Southern China and Japan	Sun, Part Shade / Medium	5ft	Dark green glossy leaves with creamy-white fragrant blooms	High maintenance. Requires fertile, fast-draining, moist soil with pH of 5-6

Annabelle Smooth Hydrangea



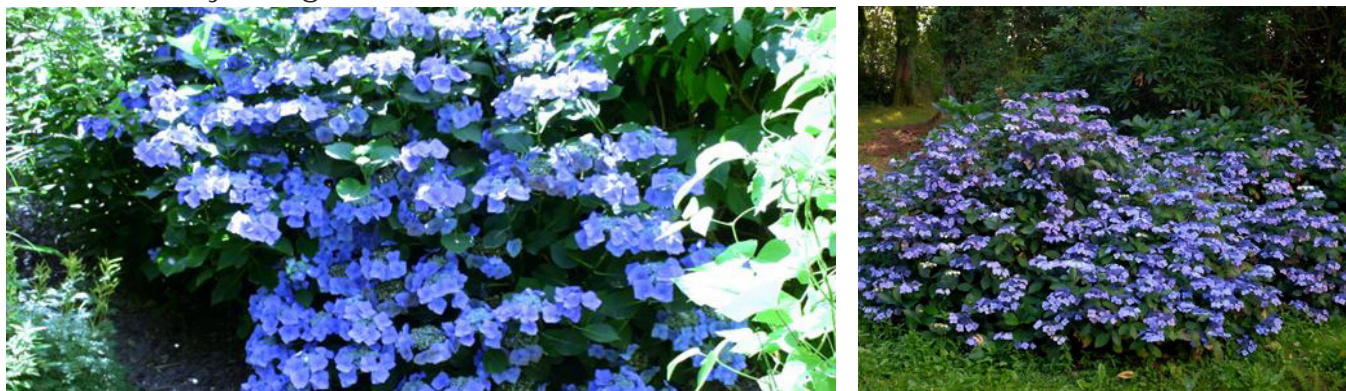
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea		Part Shade / Medium	3-5ft	Clusters of white flowers appear in rounded heads (corymbs). Dark green, serrated leaves.	Tolerates full sun if in consistently moist soil. Intolerant of drought. May be pruned to ground in late winter to revitalize and encourage vigorous stem growth

Limelight Hydrangea



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hydrangea paniculata 'Limelight'	Limelight Hydrangea		Sun, Part Shade / Medium	6-8ft	Large dense upright, cone-shaped panicles. Flowers emerge creamy white, maturing to lime and eventually pink-rose tones before beige. Serrate, dark green leaves turn attractive shades of red	Most winter hardy, best in organically rich, medium moisture, well-drained soils.

Blue Wave Hydrangea



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hydrangea macrophylla 'Blue Wave'	Blue Wave Hydrangea		Part Shade / Medium	3-6ft	Ray flowers have four wavy-edged sepals; rich blue (in acidic soil) or pink or lilac (in neutral pH); vigorous; bold leaves; 6 to 8 foot spread	Tolerates full sun is consistently moist soil. Best mulched with 3" shredded bark, peat or compost.

Pee Wee Oakleaf Hydrangea



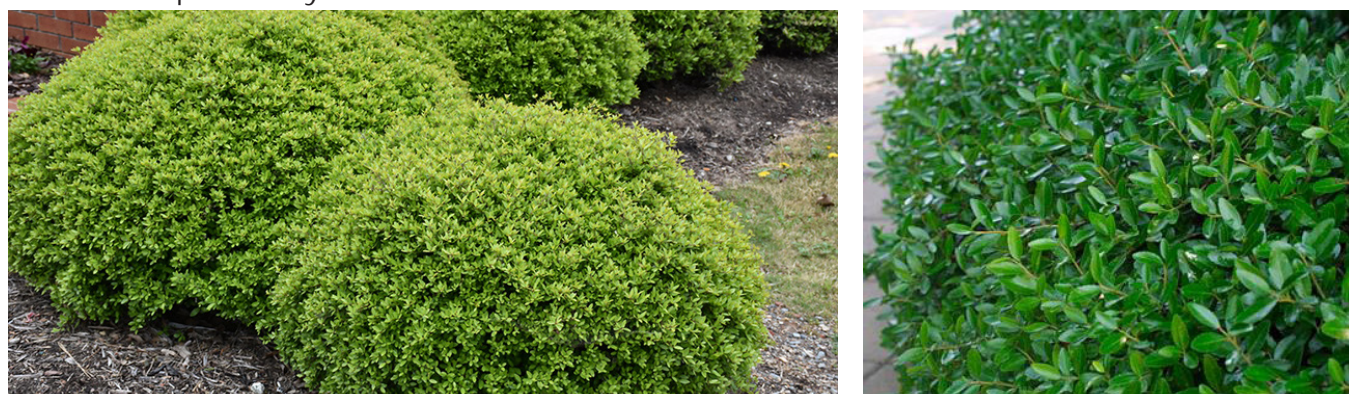
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Hydrangea quercifolia 'Pee Wee'	Pee Wee Oakleaf Hydrangea		Sun, Part Shade / Medium	3ft	4 to 12" erect panicles of fragrant white flowers in summer; fades to pink/showy fall color. Distinctive, deeply-lobed, somewhat coarse, deep green, oak-like leaves.	Thrives in moist soils, appreciates summer mulch. Blooms occur on old wood. Should be placed in a sheltered location.

Inkberry Holly



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Ilex glabra</i>	Inkberry Holly	Eastern North America	Sun, Part Shade / Medium to Wet	5-8ft	Spineless, flat ovate to elliptic, glossy, dark green leaves. Marginal teeth. Greenish white flowers inconspicuous. Female flowers give way to pea-sized, jet black, berry-like drupes and persist through winter.	Adaptable to wet soils, prefers rich, moist, acidic soils in full sun. Also shade tolerant. Remove root suckers regularly is spread is not desired.

Dwarf Yaupon Holly



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Ilex vomitoria</i> 'Nana'	Dwarf Yaupon Holly		Sun, Part Shade / Medium to Wet	3-5ft	Dense round shrub. .5-1.5"long dark green leaves (yellow-green when new). Small greenish white flowers on female shrubs will mature into red drupes.	Adaptable to dry and wet conditions. Generally tolerates more drought than most other hollies. Prune in winter if needed. Promptly remove root suckers unless naturalization is desired.

Little Henry Sweetspire



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Itea virginica</i> 'Little Henry'	Little Henry Sweetspire		Sun, Part Shade / Medium to Wet	1.5-2ft	Dwarf version of parent species. Features fragrant tiny white flowers in cylindrical drooping racemens. Oval, dark green leaves turn varying shades of red, orange and gold.	Tolerates heavy shade, clay and wet soils. Good for erosion control. Prefers moist, humusy soils.

Coastal Leucothoe



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
<i>Leucothoe axillaris</i>	Coastal Leucothoe	South Eastern US	Part Shade, Medium	2-4ft	Features thick, shiny dark green leaves that turn purplish-bronze in winter.	Prefers acidic, organic soil, can be grown in full sun with good moisture. Does not tolerate drought or windy conditions.

Southern Wax Myrtle



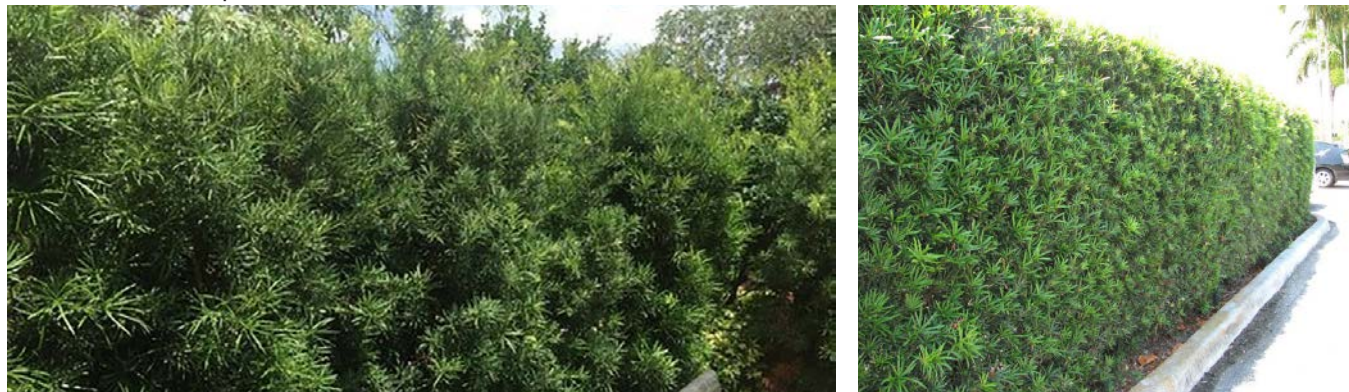
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Myrica cerifera	Southern Wax Myrtle		Sun, Part Shade / Medium to Wet	10-15ft	Gray-green foliage dotted with yellow resin glands with inconspicuous green flowers. Pollinated female flowers followed by tiny, glubose blue-gray fruits persisting through winter.	Best grown with constant moisture, tolerant of high winds and salt spray. Fixed atmospheric nitrogen (can survive in poor soils)

Schipka Cherry Laurel



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Prunus laurocerasus 'Schipkaensis'	Schipka Cherry Laurel	Southern Europe, southwestern Asia	Part Shade, Full Shade / Medium	10-18ft	Lustrous oblong, dark green leaves (6" long) no fall color. Tiny cup shaped, creamy white flowers in upright clusters.	Tolerates shade, best in moist, organically rich, well-drained soil

Yew Podocarpus



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Podocarpus macrophyllus	Yew Podocarpus	Southern China, Japan	Sun, Part Shade / Dry to Medium	6-8ft	Narrow, conical habit with leathery, soft-textured shiny dark green yew-like needles	Prefers rich, slightly acidic, well-drained soils. Tolerant of shade. Intolerant of wet soils.

White Rugosa Rose



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Rosa rugosa 'Alba'	White Rugosa Rose		Sun, Part Shade / Medium	4-6ft	Features fragrant, pure white, single flowers. Glossy, leathery, dark green foliage turns attractive shades of yellow, orange and red.	Best grown in slightly acidic, moist, well-drained garden loams . Adaptable to somewhat poor soils. Best flowering occurs in full sun. Avoid overhead watering and wet soils. Remove spent flowers to encourage re-bloom. Grows well in sand and tolerant of salt spray.

Rosemary



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Rosmarinus officinalis	Rosemary	Africa, Europe, western Asia	Full Sun / Dry to Medium	2-6ft	Needle-like, gray-green leaves and tiny-two-lipped, pale blue to white flowers. Strong aromatic flavor	Tolerates light shade, best in full sun with slightly acidic, dry to medium well drained soils. Good drought tolerance when established. Does not perform well in clay soils. Susceptible to root rot.

Fragrant Sweetbox



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Sarcococca hookeriana humilis	Fragrant Sweetbox	China	Part Shade, Full Shade / Medium	1-2ft	Lustrous, lanceolate, leathery, dark green leaves. Tiny, apetalous, unisexual, tubular, fragrant white flowers. Female flowers give way to black fruits.	Best in rich, acidic, moist, well-drained soils. Best with consistent moisture. Some drought tolerance when established.

Blackhaw Viburnum



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Viburnum prunifolium	Blackhaw Viburnum	Eastern and central United States	Sun, Part Shade / Dry to Medium	12-15ft	Non-fragrant white flowers in flat-topped cymes. Flowers give way to blue-black berry-like drupes. Ovate, finely toothed, glossy, dark green leaves turn shades of red and purple in fall. Edible fruits.	Tolerates drought, best in average, dry to medium, well-drained soils. Prune immediately after flowering since flower buds form in summer for the following year.

Sadanqua viburnum



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Viburnum suspensum	Sadanqua viburnum		Sun, Part Shade / Wet to Medium	5-8ft	Foliage is coarse and leathery. Inconspicuous flowers.	Tolerates hard freezes, does best in fertile well-drained soil.

Japanese Maple



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Acer palmatum	Japanese Maple	Korea, Japan	Sun, Part Shade / Medium	10 to 25ft	Pointed, toothed lobes, small red, purplish flowers. Fall color shades of yellow, red-purple and bronze	Low Maintenance. Prefers moist, rich, slightly acidic, well drained soil

Kousa Dogwood



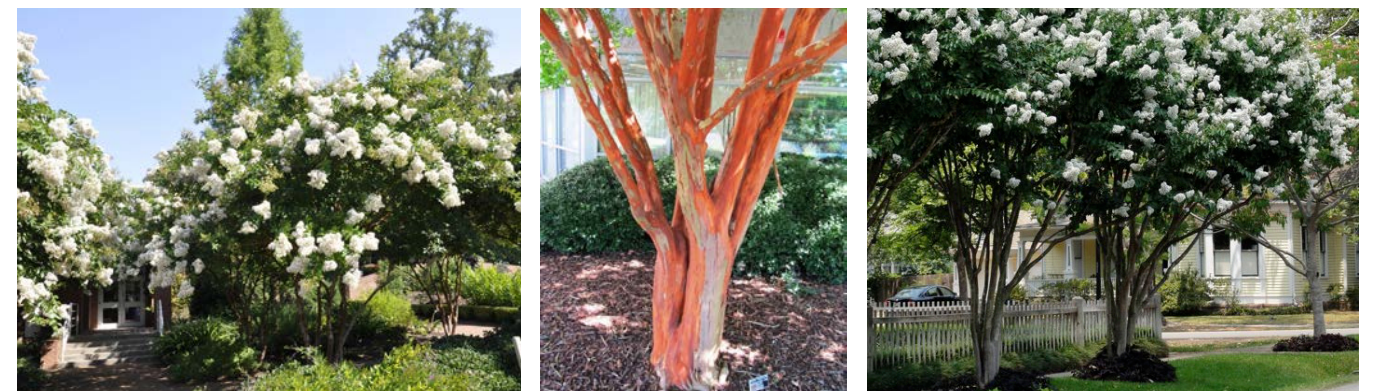
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Cornus Kousa	Kousa Dogwood	Japan, Korea, China	Sun, Part Shade / Medium	15 to 30ft	Creamy white, sometimes fading to pink. Four bracts tapered to point. Exfoliating bark	Demands acidic, well drained soils. Drought resistant

Eastern Redbud



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Cercis canadensis	Eastern Redbud	North America	Sun to Park Shade / wet to medium	20 to 30ft	Broad heart-shaped reddish purple to dark green foliage. Old bark is brown-black with orange inner bark. Magenta (rosy-purple), small pea type flowers, 4 to 8 per cluster. Blooms on trunks and bare branches. April, flowers emerge before leaves	Sensitive to salt, resistant to drought and heat. Prefers well to moderately well drainage; prefers moist soils but tolerates dry

Natchez Crape Myrtle



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Lagerstroemia indica 'Natchez'	Natchez Crape Myrtle		Full Sun / Medium	20ft	Typically multi-stemmed trunk, bark exfoliates with age. Dark green foliage turns orange to red in fall. White flowers in mid summer early fall	Best grown in average medium moisture, well drained soil with full sun. Mildew resistant.

Sweetbay Magnolia



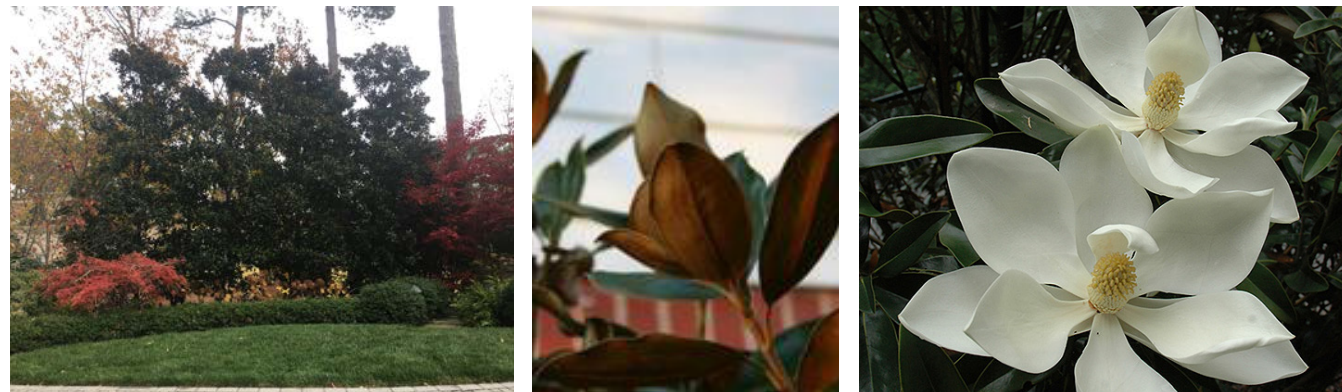
Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Magnolia virginiana	Sweetbay Magnolia	Eastern North America	Sun, Part Shade / Medium to wet	10 to 35ft	Cup-shaped, sweetly fragrant (lemony) creamy white, waxy flowers, bright red seeds persist through winter	Prefers moist, rich organic soils, tolerates wet, boggy soils

Blackgum



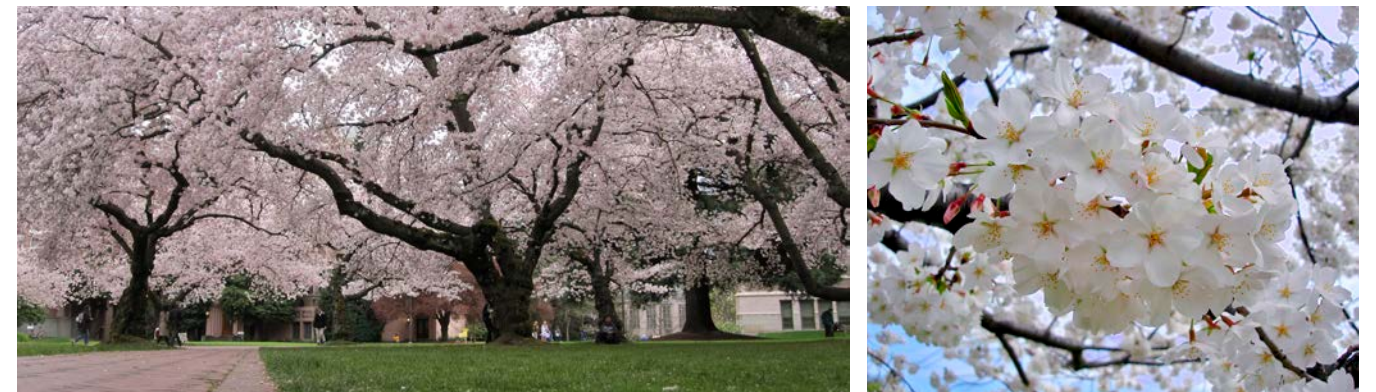
Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Nyssa sylvatica	Blackgum / Black Tupelo / Sour Gum		Sun, Part Shade / wet to medium	30-50ft	Spectacular scarlet fall color. 5" long obovate to elliptic dark green leaves. Flowers attract bees, fruits attract birds and other wildlife	Prefers moist, acidic soils, tolerates drought, poorly-drained soils and can grow in standing water.

Little Gem Magnolia



Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Magnolia grandiflora 'Little Gem'	Little Gem Magnolia	Eastern North America	Sun, Part Shade / Medium	15 to 20ft	Upright, multi-stemmed, 5" long glossy green leaves, bronze underneath	Native to moist wooded areas

Yoshino Cherry



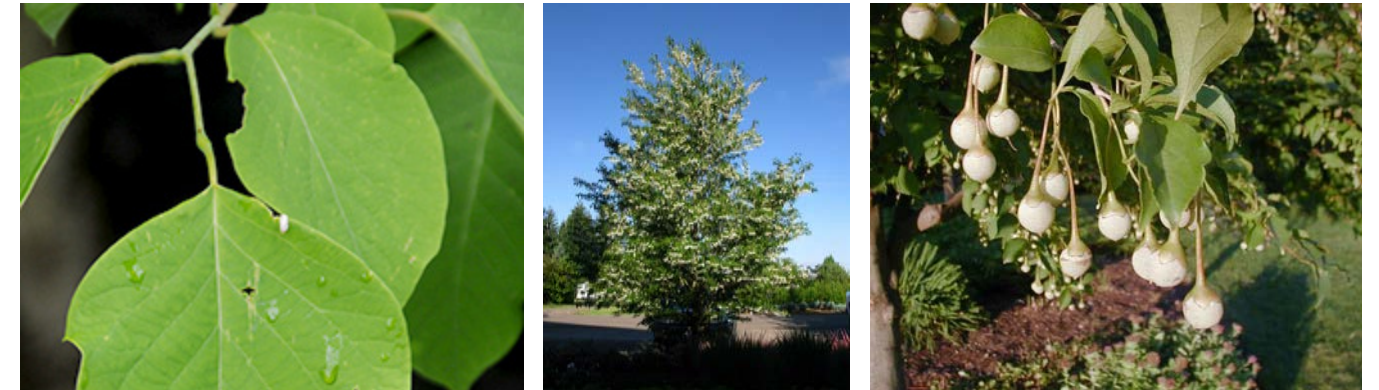
Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Prunus 'Yoshino'	Yoshino Cherry	Japan	Sun, Part Shade / Medium	30-40ft	Serrate, dark green oval leaves. Fall foliage is yellow with bronze tints in fall. Fragrant white (sometimes tinged pink) flowers are followed by small black cherries	High maintenance. Tolerates heat and humidity, not drought. Susceptible to a large number of insects and disease pests

Live Oak



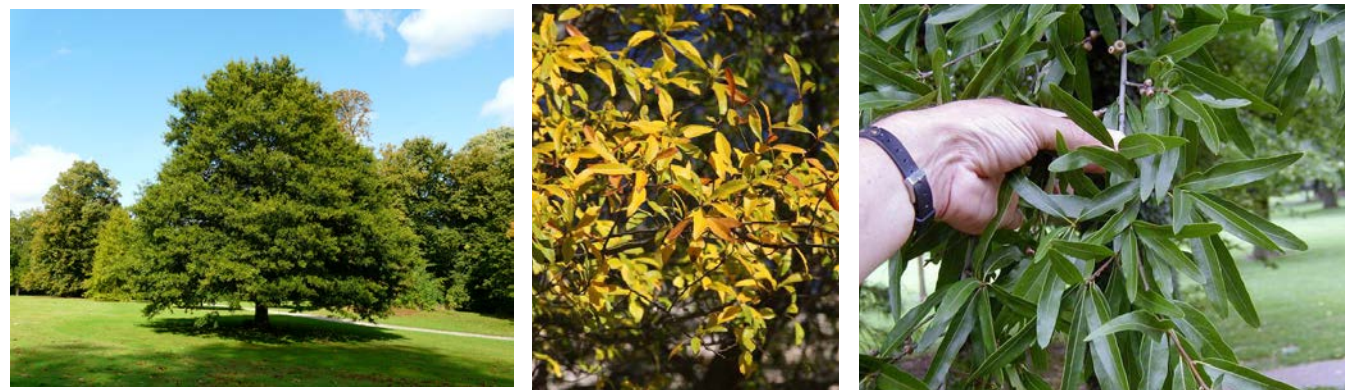
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Quercus virginiana	Live Oak	Southeast North America, Mexico	Sun / wet to medium	40-80ft	Short trunk, low-branching massive spreading limbs. Elliptic, leathery, shiny dark green 5" leaves with smooth edges. Evergreen	Low maintenance and long lived. Root rot possible with coastal trees

Japanese Snowbell



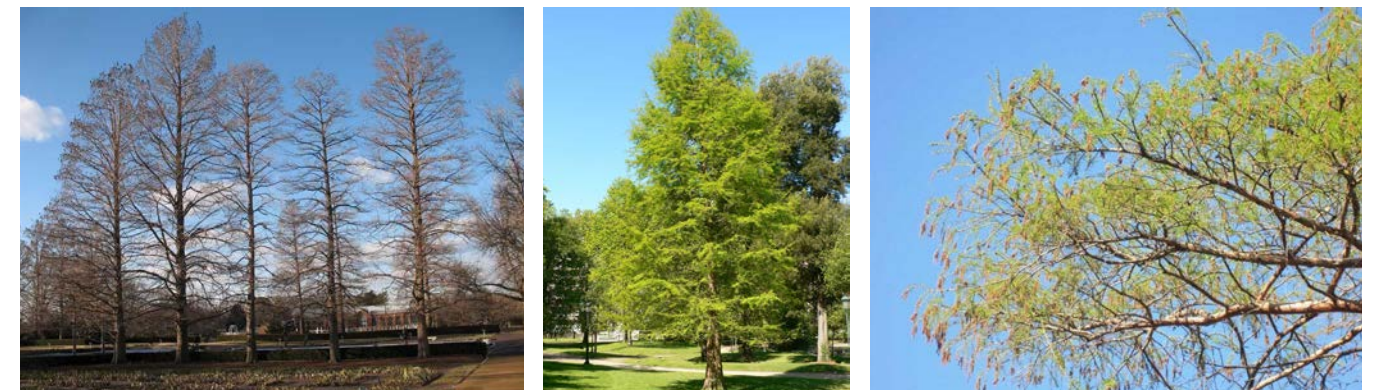
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Styrax Japonica	Japanese Snowbell	China, Japan, Korea	Sun, Part Shade / Medium	20-30ft	Bell-shaped, mildly fragrant, waxy white flowers (May to June) 3" long glossy deep green leaves	Best grown in organically rich, acidic, medium moisture, well drained in full sun. Prune in winter to shape

Willow Oak



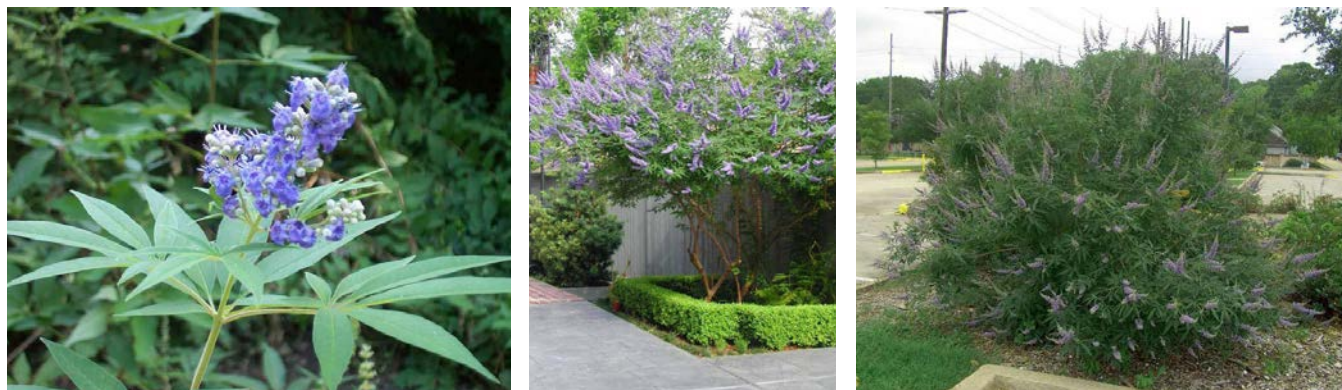
Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Quercus phellos	Willow Oak	Southeastern United States	Sun / Wet to medium	40-75ft	Smooth-edged, bristle-tipped, narrow, green leaves (to 5" long and 1" wide) are willow-like. Dark furrowed trunks	Low maintenance and long-lived. Tolerates light shade, urban pollution, poor drainage.

Bald Cypress



Latin Name	Common Name	Nativity	Sun/Water	Height	Identifying Features	Urban Tolerances / Maintenance
Taxodium distichum	Bald Cypress	Southeast United States	Sun / Wet to Medium	50-70ft	Soft, feathery, yellowish-green foliage turns attractive orange/cinnamon brown in fall. Trunks are buttressed at the base, often develops distinctive knobby root growths ("knees"). Resembles a needled evergreen in summer	Low maintenance. Prefers moist acidic, sandy soils, tolerates dry soils to wet soils in standing water

Lilac Chaste Tree



Latin Name	Common Name	Nativity	Sun/ Water	Height	Identifying Features	Urban Tolerances / Maintenance
Vitex agnus-castus	Lilac Chaste Tree	Mediterranean, Asia	Sun / Medium	8-10ft	Aromatic, compound, palmate, grayish-green leaves with lance shaped leaflets. Tiny fragrant lavender to pale violet flowers in loose panicles	Loose, medium moisture, well-drained soils. No pruning necessary. Can be trained to single trunk.

Section III.II Fences and Walls

Introduction

Fences and walls create attractive boundaries that enhance the perception of strong neighborhood identity, as well as discourage non-resident use/ circulation through private residential and shared neighborhood common spaces. Well maintained barriers reinforce the strong sense of private ownership, while failing or derelict barriers can give the opposite impression.

For this reason, inventory and analysis of existing fence typologies and conditions is paramount to the Master Plan, as are material choices for proposed new standards. A focus on durability and maintenance will reinforce the view of Ghent Square as a well-tended neighborhood.

Existing Conditions

The predominant fence material found throughout Ghent Square is wood, and in many cases these fences have deteriorated and are in poor condition. Other barriers found in Ghent Square include brick walls and metal/ iron fencing or the combination of the two. These types of fences require very little maintenance and have an upscale appearance.

Note on Materials

Wood requires more maintenance than other fence materials. Existing wood fences in good condition should be power washed (using a low pressure) a couple of times a year and repainted or stained every three years.

Composite fencing (engineered wood) is a very low maintenance alternative. Composite fencing simulates wood and requires no staining or painting, is environmentally friendly and comes in a variety of colors. Composite fencing is weather resistant and isn't affected by insects. From a distance, it is difficult to distinguish between wood and composite.

Recommendations

Instead of committing to a single type of fencing for the entire Ghent Square community, it is preferable to respect the character of each individual area and recommend various types of fencing that will be complimentary to one another.

- ▶ Residential Fencing - Wood or Composite (Fig. 3.2 and 3.3)
 - Residential fencing shall be wooden or composed of composite materials. All new fencing must mirror adjacent fencing styles and materials - given the adjacent fence either conforms to the design standards set forth in this Master Plan or if the fence has been constructed after January 1st, 2017. For example, if adjacent fencing is vertical slats with a horizontal top board, new fencing shall also be vertical with a horizontal top board. However, if adjacent fences do not follow community design standards, then new fencing shall conform to the following guidelines:
 - i. All new residential fencing shall have horizontal or vertical slats with slight gaps to allow for airflow (Fig. 3.2). Wood fencing must be stained or painted regularly in a dark brown color to maintain the cohesive look of Ghent Square, and increase its durability. Composite fencing should be a dark brown/ gray color. Please see the Appendix for quality composite manufacturers.
 - ii. If vertical slat fencing is required (to match existing conditions) the fence shall have a horizontal top board or square tops.
- ▶ Utility Fence - Wood or Composite (Fig. 3.4)
 - Utility fencing will have the similar appearance as residential fencing with horizontal slats to give a cohesive feel to the neighborhood. The function of these fences is to screen these undesirable areas. Gates or openings are required in these fences for regular access, which are to be placed in areas least visible to the public.
- ▶ Semi Public Area Fencing – 36" Ht. Black Aluminum (Fig. 3.5)
 - For semi-public area fencing (please see *Chapter IV. Zone Specific Design* for proposed locations) a low black aluminum fence is to be used. The low fence provides a sense of private ownership and discourages unwanted foot traffic through the parks, while maintaining the great views of the open space. The aluminum fencing will have a simple vertical picket design which will be cost effective and easy to replace when needed.
- ▶ Site Walls - Brick or a combination of brick & aluminum fence (Fig. 3.6)
 - In prominent areas throughout Ghent Square, such as corners, intersections and gateways, where barriers are needed, we recommend brick walls (6' Ht.) or aluminum fencing (48" Ht.) on top of the brick walls (18" Ht.).



Figure 3.2 Residential Fencing - Wood or PVC



Figure 3.3 Residential Fencing Alternative - Wood or PVC



Figure 3.6 Site Walls - Brick or Aluminum/Brick Combination



Figure 3.4 Utility Fencing - Wood or PVC



Figure 3.5 Semi Public Area Fencing - Black Aluminum



Figure 3.6 Site Walls - Brick or Aluminum/Brick Combination

Section III.III Flooding

Introduction

As we are all too aware, flooding in Norfolk has become an increasingly large issue. Downtown and Ghent suffer some of the worst and most frequent flooding within the city. A glance at some historical maps of Norfolk shows part of the reason: much of both are built on fill over what were once creeks. In this enlargement of a map of Norfolk from 1873 (Fig. 3.6), you can see that the future intersection of Duke and Llewellyn is, in 1873, in the middle of Smith's Creek. The Creek branches to the west and then north, following roughly the path of Mowbray Arch.

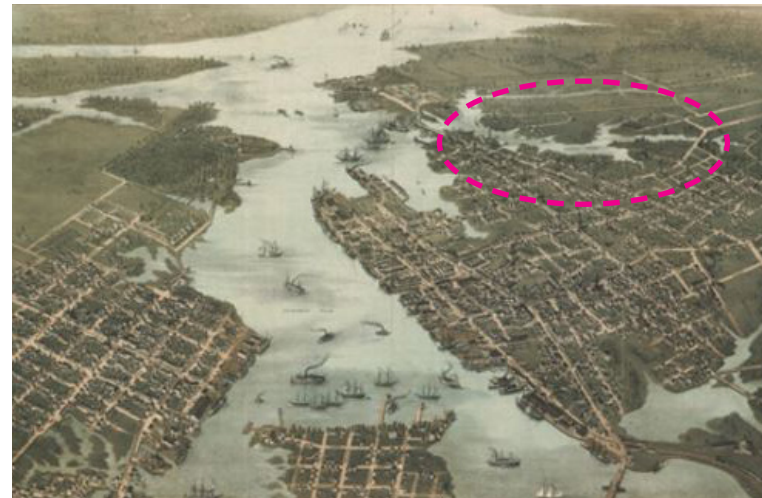
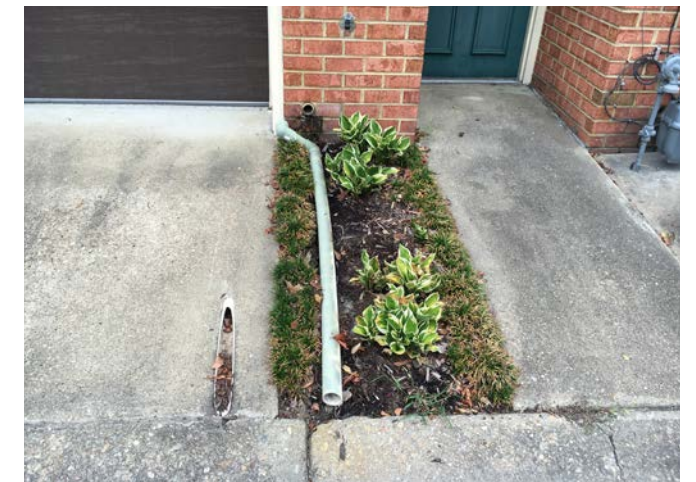


Figure 3.6 Downtown Norfolk 1873

Managing Water Quantity

Teaming with the Norfolk Office of Resiliency and non-profits such as Wetlands Watch, Ghent Square has an opportunity to demonstrate real flooding mitigation at the residential level. The Norfolk Department of Public Works Stormwater division has introduced a program called Retain Your Rain in which small-scale rainwater management practices assist individual homeowners in holding rainwater where it falls. This reduces the amount of water that goes into the stormwater system and thereby helps reduce the amount of flooding. To learn more about this program visit the Norfolk website and search 'retain your rain' or [click here](#). The Retain your Rain program lists various practices that can be easily implemented at home such as green roofs, rain barrel capturing systems, downspout disconnection, rain gardens, tree planting, pervious pavers and conservation landscapes.

The Department of Public Works has also created a Residential Stormwater Fee Reduction Program and provide a tool to calculate rainwater capture potential in Norfolk. Using the online rainwater calculator, we found that if just the south side of Westover between West Botetourt Court and Mowbray Arch detained or retained the roof water, 18,650 gallons of water per hour of rainfall would stay out of the street. That's enough rainwater to fill 373 bathtubs!



Existing Stormwater Management Condition



Flooding Mitigation Concept Strategies

Section III.IV Gateways

Ghent Square - Neighborhood Gateway Opportunities

Gateways define pedestrian and vehicular entrances to the neighborhood and create a sense of place and identity. Below is a list of elements that evoke an aura of welcome and arrival, and serve as inspiration for additional gateway elements that could occur within the landscape.

- ▶ Brick crosswalks (Fig. 3.7)
- ▶ Sidewalk embedded Ghent Square signage (Fig. 3.8 and Fig. 3.13)
- ▶ Light post mounted metal Ghent Square signage (Fig. 3.9 and Fig. 3.13)
- ▶ Planting bed enhancement (Fig. 3.10)
- ▶ Monument Ghent Square signage or large brick piers with signage (Fig. 3.11)



Figure 3.7 Brick crosswalks



Figure 3.8 Sidewalk Embedded signage



Figure 3.9 Light post signage



Figure 3.10 Planting Bed Enhancement



Figure 3.11 Brick piers with signage

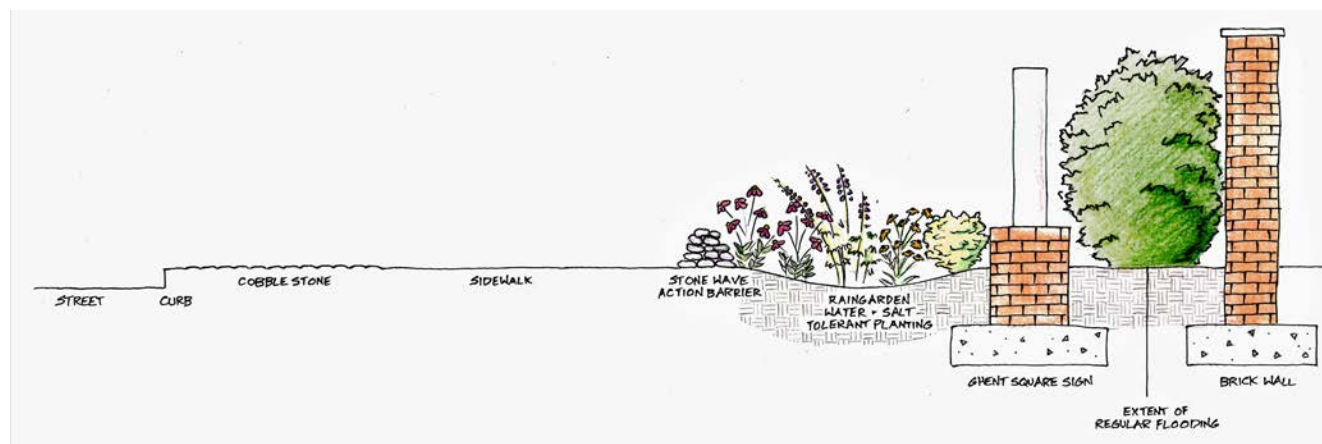


Figure 3.12 Gateway Location Map

Primary Gateways

The main vehicular and pedestrian entry points to Ghent Square are located at entry A, B and C (Fig. 3.12).

The impact of these three primary gateways can be amplified and improved for pedestrian access and safety with brick crosswalks. Embedded Ghent Square signage will also clearly demarcate the boundaries of the neighborhood. Additional specific improvements for each gateway is provided on the following pages.



Section for Gateway A

Signage

Aside from the traffic signs and private parking notices, Ghent Square lacks a comprehensive and unifying signage strategy. The purpose of community identification signage is to reflect ownership, orient visitors and unify the community aesthetic. New signage should be placed throughout the neighborhood at deliberate, high-volume areas and entry points. Exact signage placement and design should be discussed and agreed upon by the Ghent Square Community Association before implementation. The final sign design and placement must also be approved by the Architectural Review Board - visit the Norfolk City Website for more information or [click here for the Signs, Canopies, Awnings and Outdoor Patios Application](#) to get started!

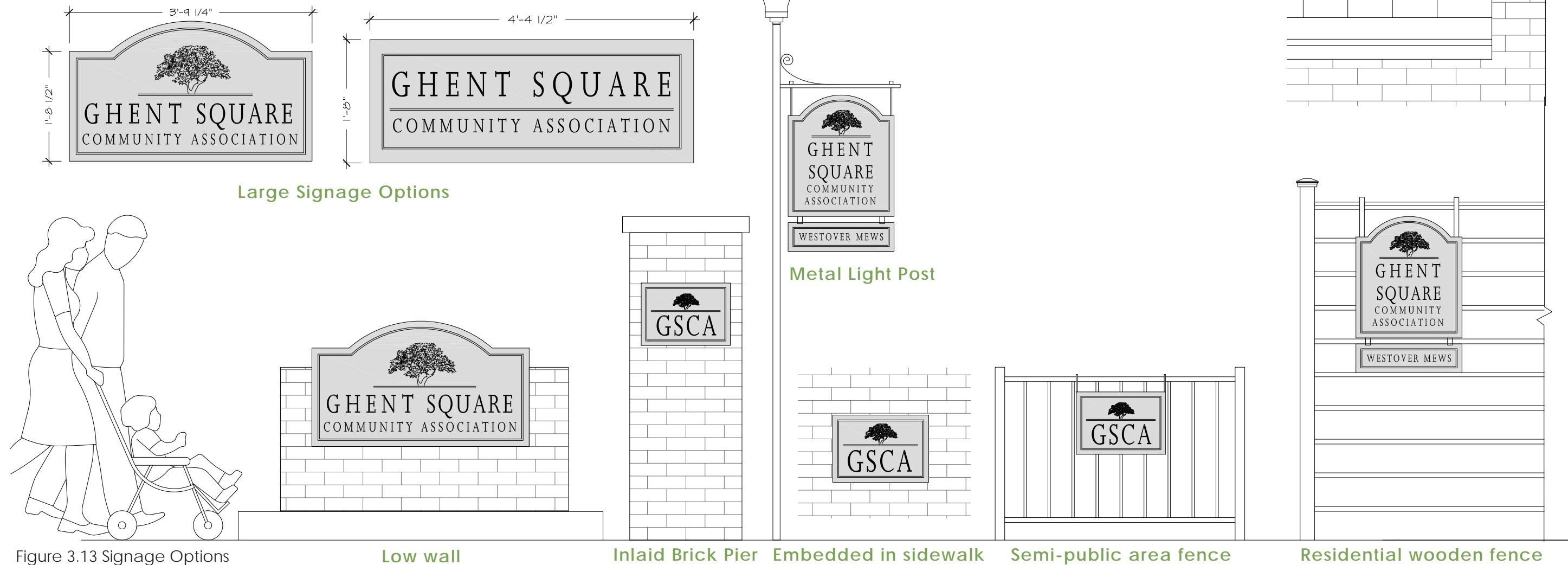


Figure 3.13 Signage Options

Low wall

Inlaid Brick Pier

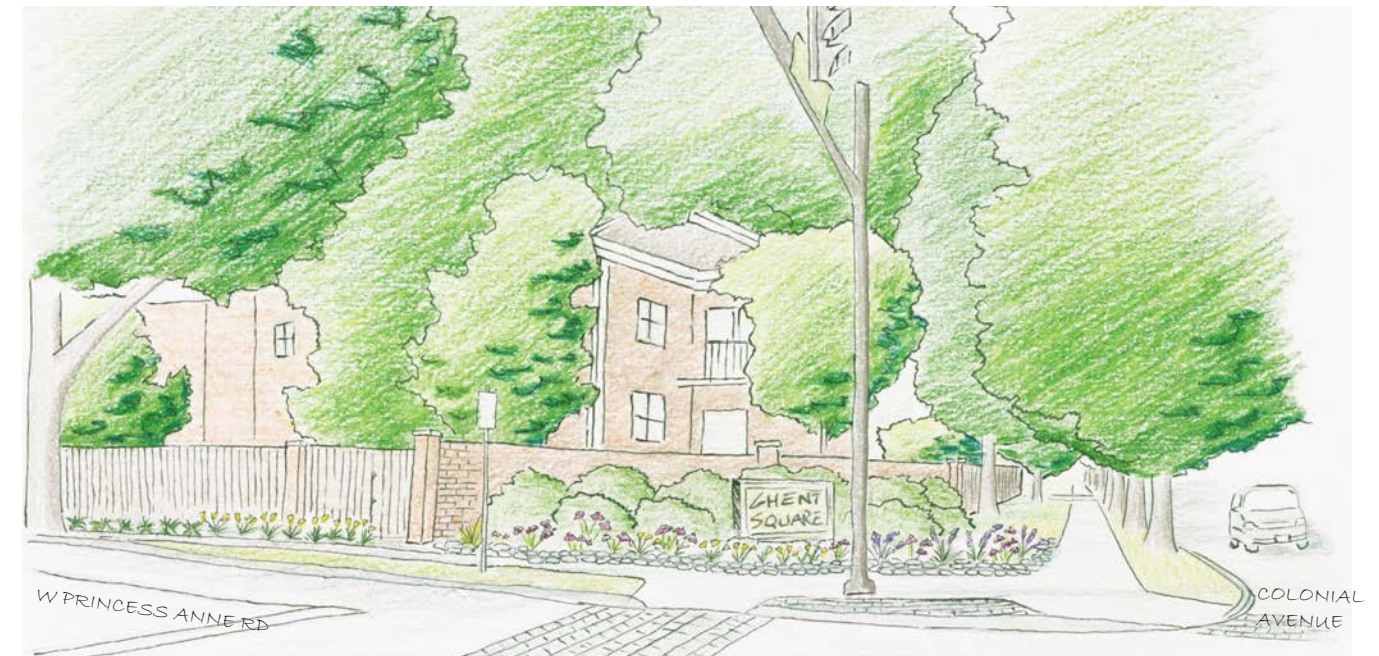
Embedded in sidewalk

Semi-public area fence

Residential wooden fence



Existing Conditions of Gateway A



Proposed Improvements for Gateway A

Gateway A (Colonial Avenue/ Princess Anne Road)

- ▶ Street flooding solutions such as swale/rain garden planting with salt tolerant plants
- ▶ Low wall with Ghent Square sign incorporated (Fig. 3.14)
- ▶ Curved brick wall at property line

Gateway B (Llewellyn Ave/ Princess Anne Rd)

- ▶ Ghent Square Signage - Light post (Fig. 3.13 Light Post)
- ▶ Planting bed enhancement

Gateway C (Llewellyn Ave/ Westover Ave)

- ▶ More visible signage (Fig 3.13 Large Signage Options)
- ▶ Large sweeping planting beds



Figure 3.14 Gateway A Curved Wall Example



Existing Conditions of Gateway B



Perspective for Gateway B



Existing Conditions of Gateway C



Perspective for Gateway C

Botetourt Gardens Gateways

The secondary gateways into Ghent Square are located at entry D, E and F. These points of entry are primarily for internal vehicle and pedestrian access to the residences and Botetourt Gardens.

These secondary entrances should also be augmented with brick crosswalks and embedded Ghent Square signage. Additional perennial planting (including small flowering trees such as *Styrax japonicus*) along the verge at the corners of these entrances will also further define the boundary of the community and complement the gardens and Fred Heutte Center. Additional specific improvements for each secondary entry point is provided below.

Gateway D (Botetourt Gardens/ Shirley Ave)

- ▶ Large Ghent Square signage or large brick piers with signage on either end of central median.



Gateway E (Botetourt Gardens/ W Olney Rd)

- ▶ Treatment should complement and/or mirror improvements to Gateway D.
- ▶ Large Ghent Square Signage or large brick piers with signage located on either end of central median.
- ▶ Planting bed enhancement.

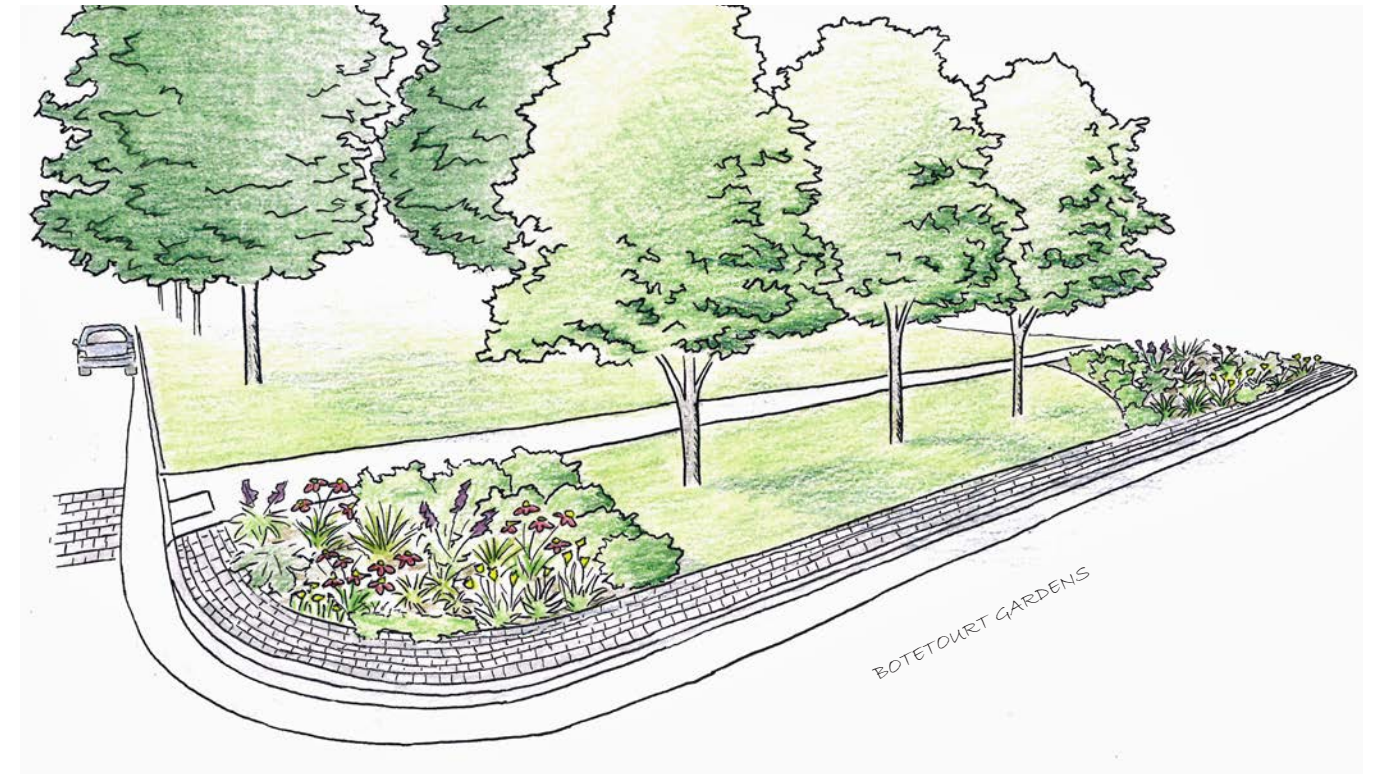


Gateway F (Botetourt Gardens/ W Princess Anne Rd)

- ▶ Large Ghent Square sign.



Existing Conditions of Gateways



Perspective for Gateway D,E & F



Yoshino Cherry Tree



Tall Verbena



Cassian Fountain Grass



Immortality Iris

Major Corridors

Lastly, it is important to acknowledge the major corridors that flow through the site. A corridor can be many things, such as a road, a stream or a line of trees (i.e. a wildlife corridor). Within the context of Ghent Square there are two important corridors to address, State Route 166/Princess Anne Rd and the linear green corridor that bisects the site, Botetourt Gardens.

SR 166 / Princess Anne Road

This heavily trafficked corridor extends throughout the City and the entire length of Princess Anne Rd accommodates an average 144,000 daily vehicles. Luckily, the segment of Princess Anne that runs through Ghent Square (between Llewellyn and Colonial Ave) only must accommodate approximately 10,000 vehicles per day. In fact, Princess Anne takes on a very different character as you travel west of Monticello Avenue towards the site. When one drives down this segment of the corridor they will notice a full tree canopy, narrower roads, and private residences on either side. While these factors should subtly nudge the driver to slow down, additional traffic calming strategies, such as brick crosswalks (Fig. 3.7), will greatly improve pedestrian safety. Furthermore, additional signage and lighting fixtures along the corridor (Fig. 3.13) will signal to the driver that they are passing through a unique place and should be particularly alert.

Princess Anne road is also a public transit route (Route 023 Norfolk General/Military Circle/Janaf) and there are three bus stops along Ghent Square segment of Princess Anne. Sidewalk embedded Ghent Square signage (Fig. 3.8) will indicate to pedestrians that they are within a place of historical significance.



Figure 3.15 Existing condition of Princess Anne corridor

Botetourt Gardens Corridor

This pedestrian, wildlife and vehicular corridor bisects the site and is the spine that unifies the neighborhood. Many neighborhood residents and community members use this space to walk, play and relax (See Section II.II Resident Feedback Analysis), therefore the interior pedestrian network of the site can be easily and subtly defined with Ghent Square signage embedded into the sidewalks. Additional lighting and signage just below the sidewalk canopy will also increase safety and signal the importance of the area. Lastly, brick crosswalks will complement the treatments made at the points of entry.

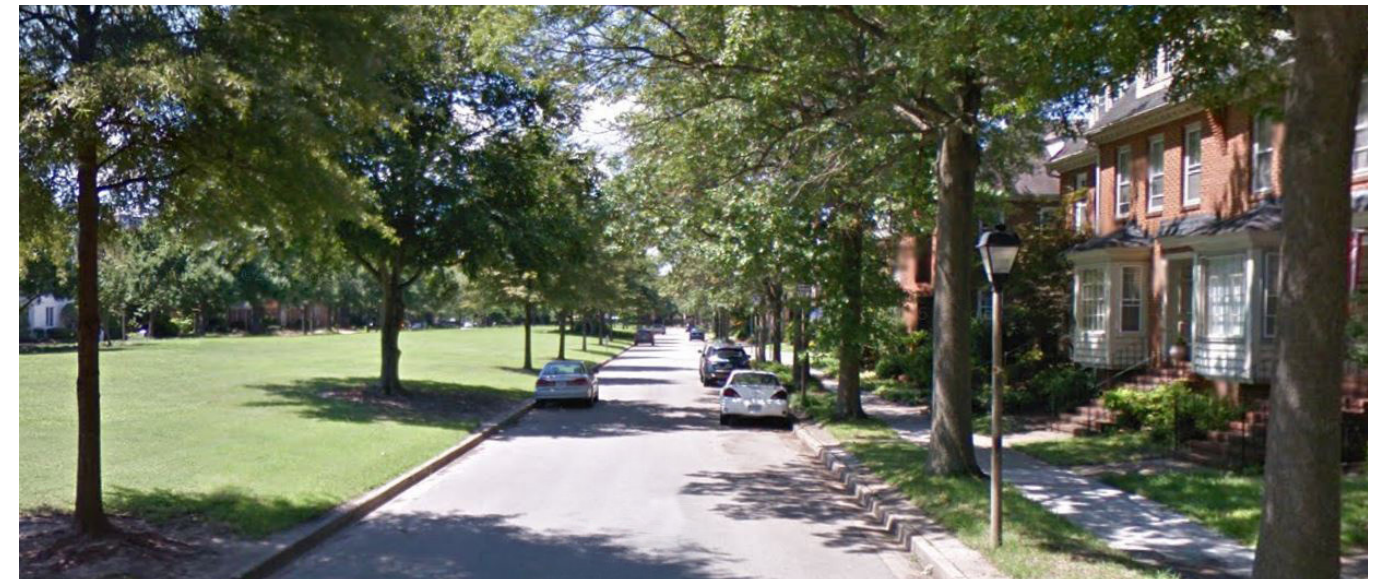


Figure 3.16 Existing condition of Botetourt Gardens corridor

Section III.V Shared Spaces

According to resident questionnaire answers, there are several outstanding characters of a good quality shared space in the community which residents find attractive.

- ▶ Besides supporting various activities like playing ball, an open lawn also provides a venue for passive activities, like gathering, picnicking, and sitting.
- ▶ An aesthetically pleasing landscape must be well maintained with trees providing good level of shade, plant compositions with diverse species, colors and blooming seasons.
- ▶ The right balance of open and welcoming, but also secured.

The following concept images show how a successful public space holds various activities that people need for relaxing, socializing and interacting.

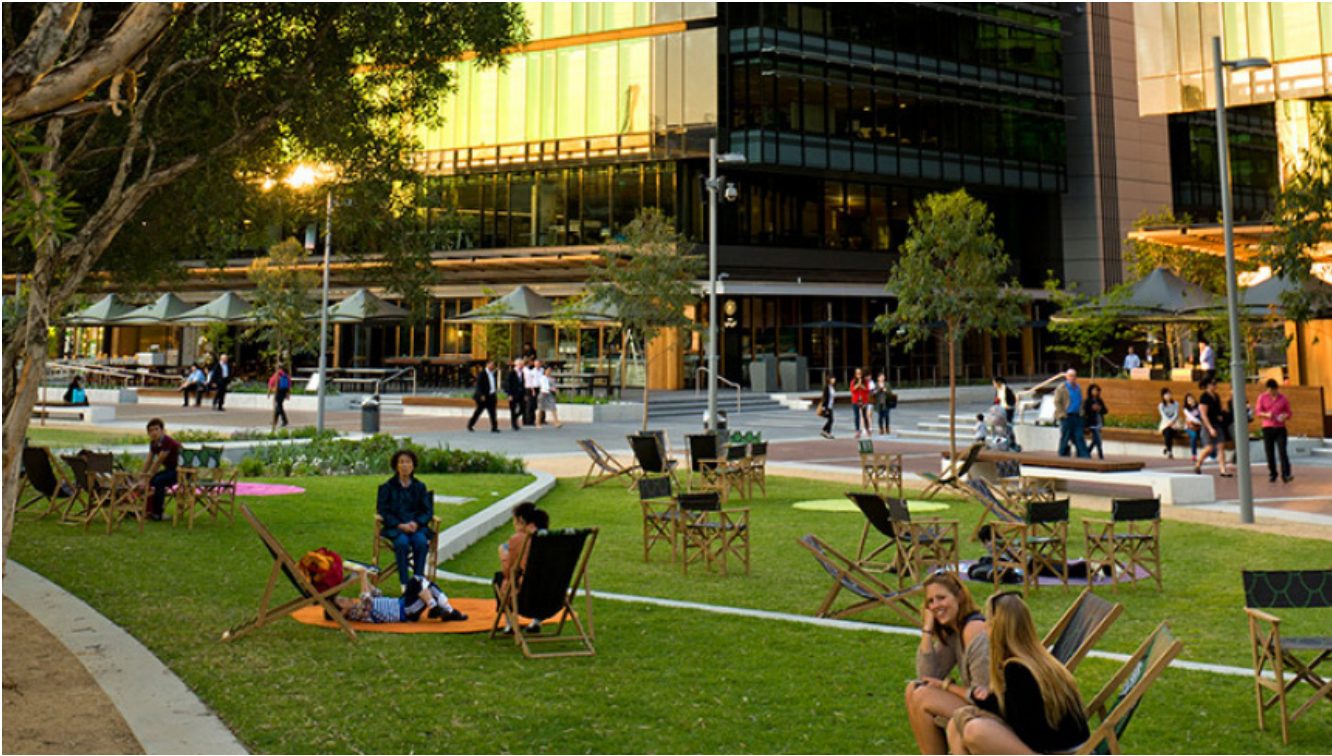
Open space with well-defined edges and well placed structures develop a sense of peace and welcome, which will attract residents to sit, read and relax there. Where spaces are open at the edge, they welcome residents to gather with friends. The more open the space in proportion, more activities the space will support and more visitors it will attract. What's more, when designed as a special sequence, spaces lead people to experience the landscape and to interact with each other without feeling interrupted or like they are intruding. For example, people sitting under the tree canopy will watch a group of people throwing Frisbee in the lawn; they do not interrupt the group's activity and at the same time their space is protected, and vice versa. Similarly, active programming such as bocce courts can be placed at the edges of open spaces without breaking up large expanse of lawn used for activities like soccer and football.

Well placed structures like pergolas, arbors and pavilions can play multiple roles in the landscape. They can function as threshold markers which provide a sense of arrival, as part of circulation routes or as a roof for shade.

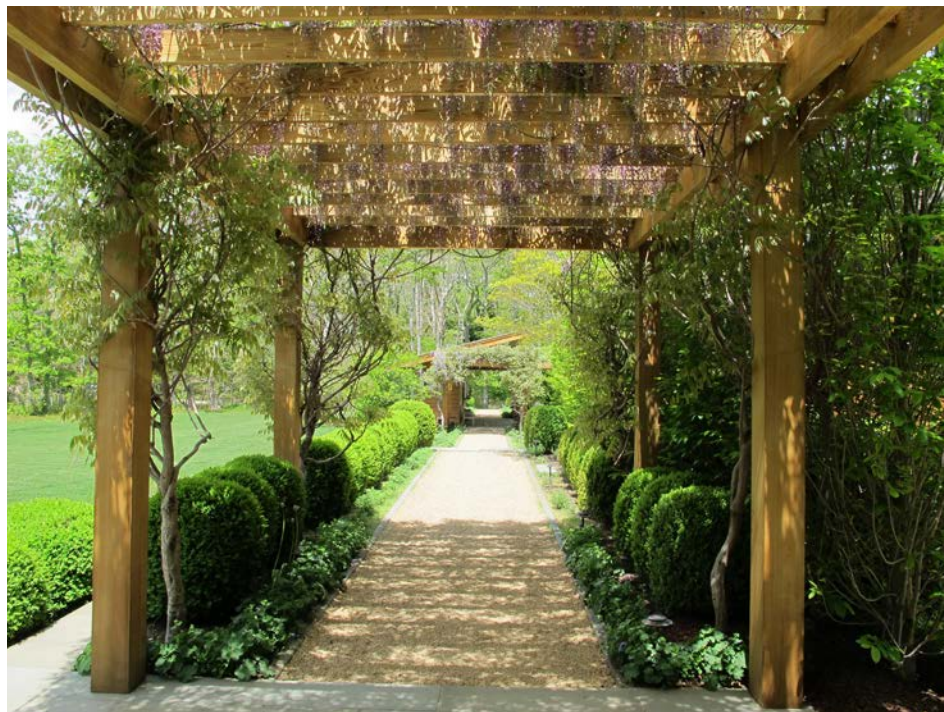
Gates and fences delineate the zones of private vs public space to people outside of the community. To enhance the sense of security, and better defined edges, more to come in *Chapter IV: Zone Specific Designs*.



Open Spaces with Well-defined Edges



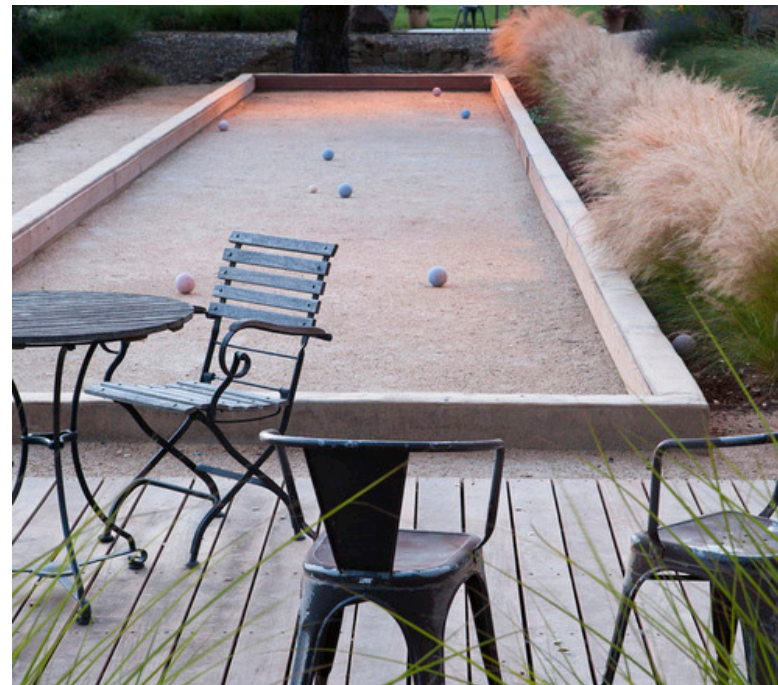
Open Space: supporting gathering, play and rest



Welcoming Structures and Well-placed Structures



Amenities: bocce court



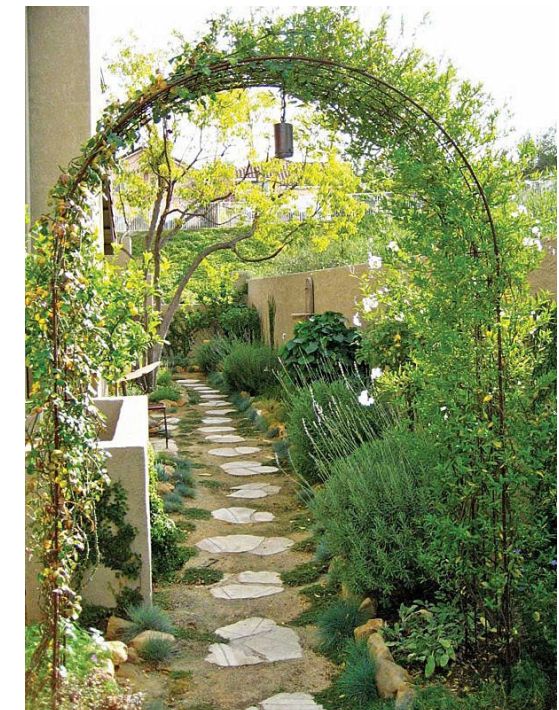
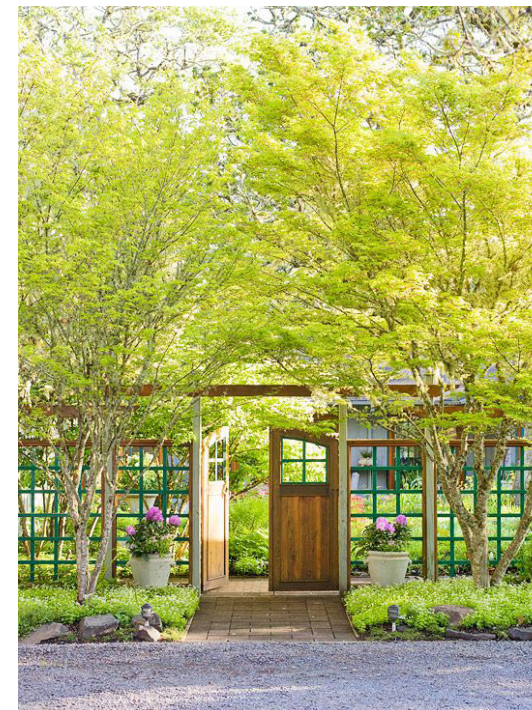
Amenities: fire pit



Amenities: shade structures



Well-defined edges with fences, gates and barriers

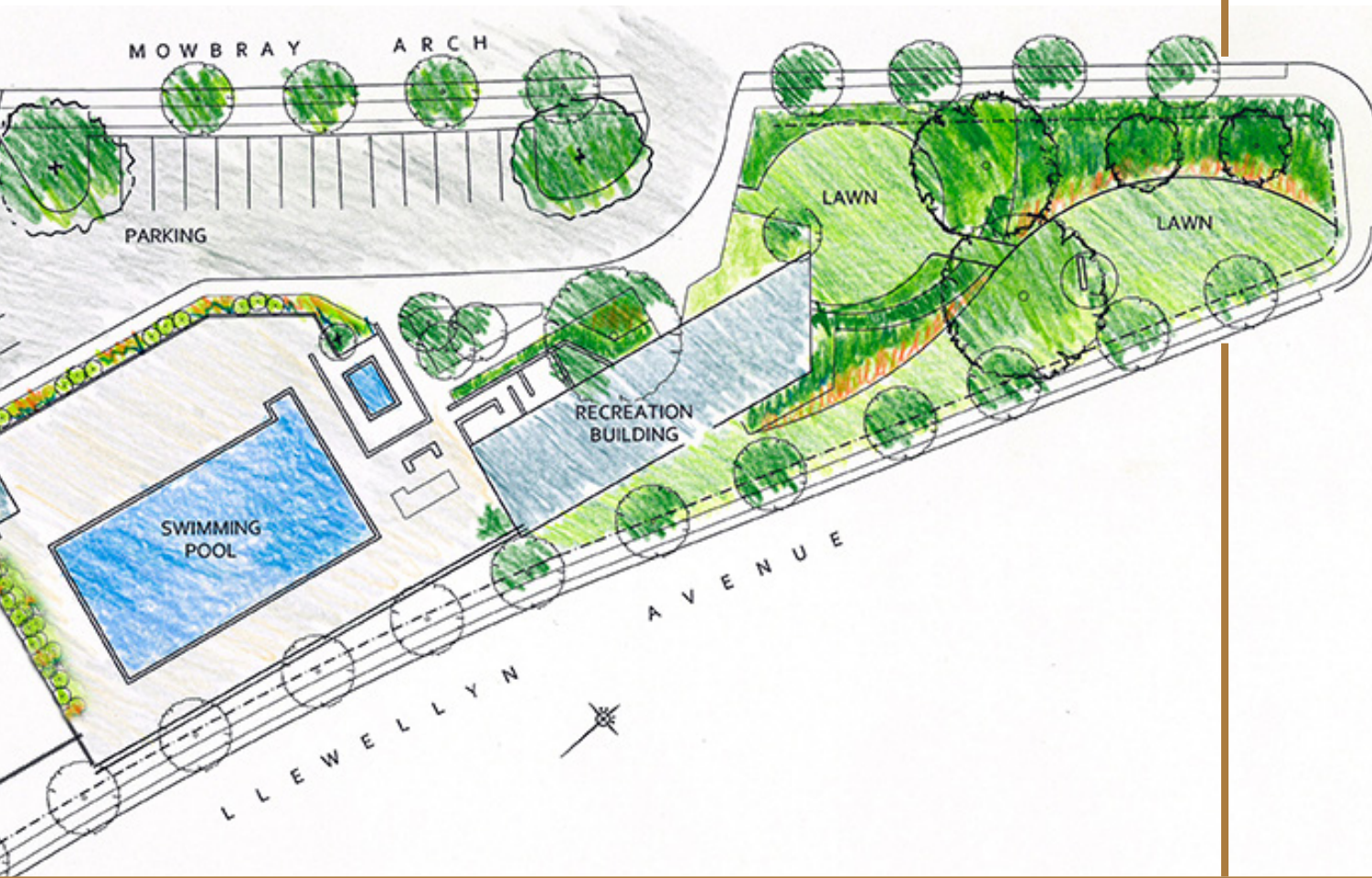


IV

ZONE SPECIFIC DESIGNS



GHENT SQUARE COMMUNITY ASSOCIATION
LANDSCAPE MASTER PLAN



ANN P. STOKES
LANDSCAPE ARCHITECTS

Section IV.I Zone Specific Design

Zone Specific Designs at Level 1, Level 5 & Level 10

Planting Areas for the Ghent Square Master Plan are broken down into 3 Levels:
Level 1, Level 5 & Level 10.

- ▶ Level 1 provides the most detailed plan and could, theoretically, be handed to a contractor for construction. This level of design provides plant spacing and quantities as well as additional information regarding amenities and materials. (Ex. Westover Mews Courtyard)
- ▶ Level 5 designs show plant species, but not quantities, and illustrates concepts for hardscape elements but do not detail those elements. (Ex. Botetourt Gardens)
- ▶ A level 10 design is a conceptual plan that distinguishes area of turf versus planting, and perennials versus tree and hedge.



Figure 3.1 Zone specific design map

Zone 1A Van Wyck Mews - Design Level 5

The planting design strategy for Zone 1A focuses on creating focal points via flowering displays, screening negative views or fences and creating a denser tree canopy within the central green space. Key elements are listed below and all design suggestions are noted in Figure 4.2.

- ▶ Colorful perennial planting should be located at all street intersections. Concentrating the most colorful displays at the terminus of the streets will maximize their impact and provide an interesting visual element for residents and visitors alike. This will require certain existing planting beds be replaced with lower maintenance solutions such as turf, or moved altogether.
- ▶ The central green space lacks visual variety or 'personality'. Adding an informal gathering space within this area will give focus to the large swath of green that currently exists while leaving enough room for recreational activities. The gathering space will also provide a much-needed amenity for the neighborhood, as a place to socialize and play.
- ▶ Planting few colorful trees will strengthen the focal point and frame the proposed gathering space.
- ▶ Additional tree planting along the border of the central green space will solidify the border between the green space and the street and enhance the tree canopy.
- ▶ The existing chain-link fence that exists behind the Public Library is unsightly and should be screened with a low shrub hedge. The shrubs should not grow higher than 3-4ft so that security is not compromised.

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



Replace exposed soil in verge with solid green Liriope or new turf.

Existing trees in verge. Replace dead or dying trees.

Limb up trees in front of fence to 20' to create a more elegant and manicured look.

Unightly utility box. Due to door location and proximity to sidewalk, consider painting utility instead of screening with plants or fence.

Existing fence to remain see fence designs for replacement recommendations.

Plant Black Gum trees in gaps between existing trees along green space edge.

Delaware Valley White Azalea
Pee Wee Oakleaf Hydrangeas

Drifts of evergreen and deciduous shrubs at the edges of the berm to define the edges and enhance the seasonal display.

Remove existing shrubs and Ivy in bed. Replace with fresh shrubs and perennials.

'Little Lime' Hydrangea

Cassian Fountain Grass

Walker's Low Catmint

Walker's Low Catmint

Indian Summer

Black-Eyed Susan

Cassian Fountain Grass

Remove existing shrubs and replace with colorful perennial planting.

DE BREE AVE

Sidewalk

VAN WYCK MEWS

Plant new light pink Grape Myrtles to frame gathering space

Big Blue Liriope

Cassian Fountain Grass

Delaware Valley White Azalea

Pee Wee Oakleaf Hydrangeas

Existing Grape Myrtles

Concentrate ornamental planting at this highly visible area.

gravel

court

lawn

Cobblestone edge

Proposed fine gravel bocce court

Informal gathering space tucked along curve of existing berm

Cobblestone edge

Convert bed space next to parking to lawn. Focus planting beds on larger drifts of shrubs and perennials.

Low shrub and evergreen perennial planting along existing fence to beautify edge without creating a safety concern.

Little Henry Sweetspire

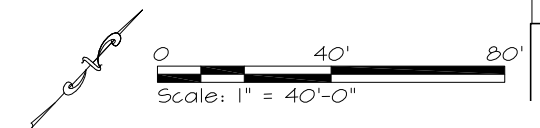
Holly Fern

TOWNHOMES FACING THE GREEN
Cast Iron Plant

Existing fence

BOTETOURT GARDENS

Figure 4.2. Van Wyck Mews Design



Zone 1B Pender Court - Design Level 5

The design of Zone 1B focuses on planting additional, diverse and colorful plants to the existing vegetation, creating more usable space within the park and screening undesirable utilities. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.3.

- ▶ Planting additional flowering perennials, shrubs and trees will reduce the amount of exposed mulch and soil throughout the site. Denser planting designs will also help define the boundaries of the park and can be situated along the busy streets to draw attention to the space.
- ▶ Pender Park should be regraded at the crest of the hill to accommodate more activities.
- ▶ Like the green space within Zone 1A, Pender Park, lacks character and amenities and can be greatly improved with a simple pergola structure. The structure will frame the view of the park and visually break up the space into a series of smaller, more usable zones.



Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



Zone 2A Westover Mews - Design Level 1

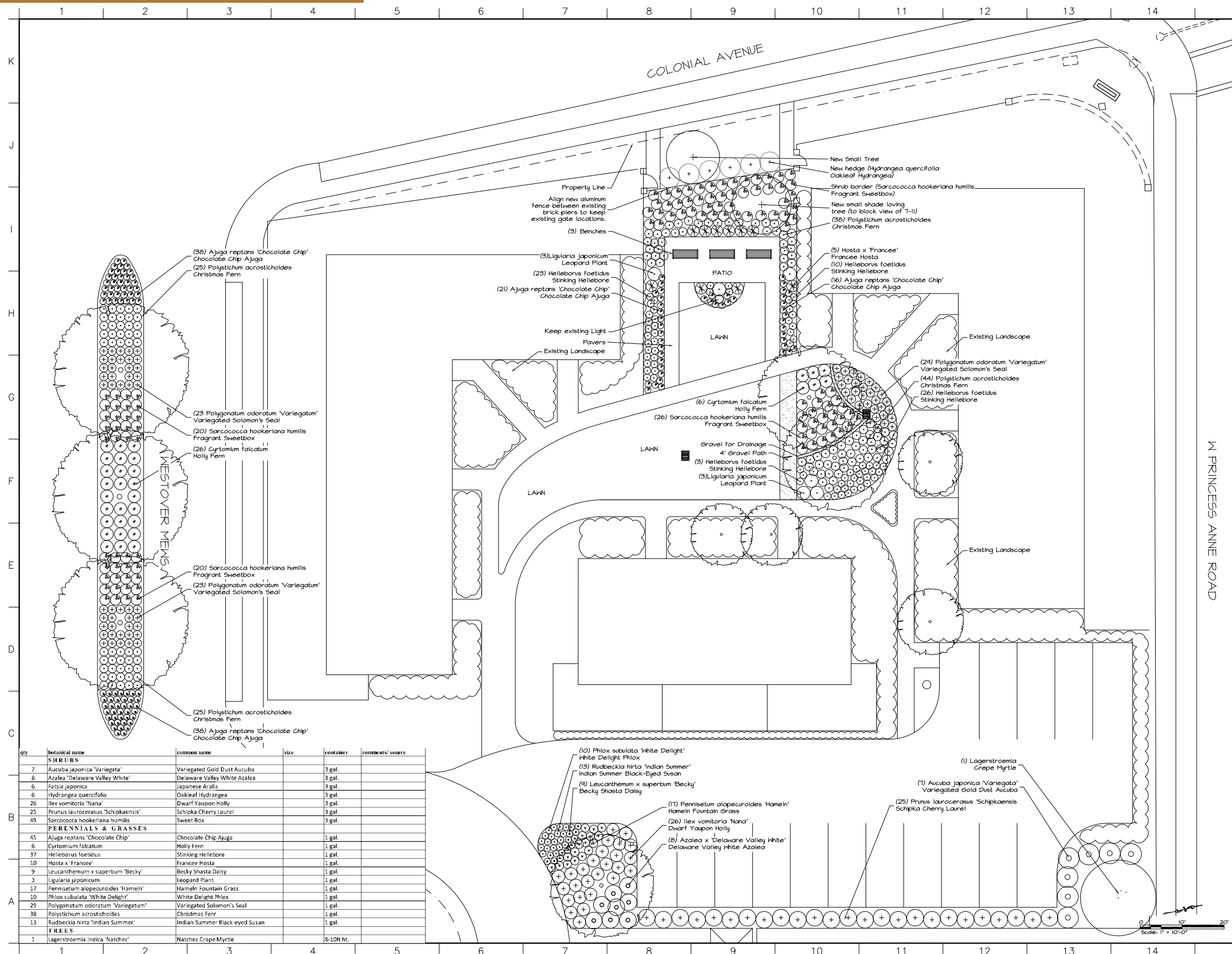
The design for Zone 2A emphasizes replacing bare soil and mulch with additional vegetation, creating more interesting entrances into the courtyard and solidifying the boundaries between public and private property. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.4 and Figure 4.5.

- ▶ Planting additional vegetation under and around existing trees will supplant existing exposed soil and mulch, which is prone to erosion and soil compaction.
- ▶ Dense planting designs along the existing fences will not only block views, it will also soften the transition between private the public space.
- ▶ The additional colorful plantings will also frame the courtyard and strengthen the central focal point and bring special attention to the entrances into the courtyard.
- ▶ For added visual interest and opportunities for social interaction, the center of the courtyard should exhibit a small paved area with a pergola.
- ▶ Views onto the smaller green space (Located northeast of the central green space) from the east and west lack a focal point. A pergola and gravel seating area, buffered from Colonial Avenue with dense vegetation, will draw the eye into the common space as added visual interest. This will also offer opportunities for social interaction.
- ▶ Understory vegetation along the median of the internal street should also be augmented to reduce mulch coverage and subsequent erosion.
- ▶ Within the smaller green space, a centrally located understory rain garden can address the erosion and stormwater runoff that would otherwise carry topsoil and mulch off the site.

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details regarding mitigation strategies.





LEGEND

LOCATION MAP

GHENT SQUARE
WESTOVER MEWS COURTYARD
NORFOLK, VA

ANN P. STOKES
LANDSCAPE ARCHITECTS
440 GRANBY STREET - NORFOLK, VIRGINIA - 23510
TEL (757) 423-6550 - FAX (757) 423-6500
www.apsla.net

LANDSCAPE PLAN

Project No.	Date
1612	4.20.17
CAD File	Scale
L-cd 1612	1" = 10'
Drawing No.	

L3.2

QTY	botanical name	common name	size	container	comments / source
SHRUBS					
7	<i>Aucuba japonica</i> 'Variegata'	Variegated Gold Dust Aucuba		3 gal.	
8	Azalea 'Delaware Valley White'	Delaware Valley White Azalea		3 gal.	
6	<i>Fatsia japonica</i>	Japanese Aralia		3 gal.	
6	<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea		3 gal.	
26	<i>Ilex vomitoria</i> 'Nana'	Dwarf Yaupon Holly		3 gal.	
25	<i>Prunus laurocerasus</i> 'Schipkaensis'	Schipka Cherry Laurel		3 gal.	
49	<i>Sarcococca hookeriana</i> humilis	Sweet Box		3 gal.	
PERENNIALS & GRASSES					
1	<i>Ajuga reptans</i> 'Chocolate Chip'	Chocolate Chip Ajuga		1 gal.	
6	<i>Cyrtomium falcatum</i>	Holly Fern		1 gal.	
37	<i>Helleborus foetidus</i>	Stinking Hellebore		1 gal.	
10	<i>Hosta x 'Frances'</i>	Francee Hosta		1 gal.	
9	<i>Leucanthemum x superbum</i> 'Becky'	Becky Shasta Daisy		1 gal.	
3	<i>Ligularia japonicum</i>	Leopard Plant		1 gal.	
17	<i>Pennisetum alopecuroides</i> 'Hameln'	Hameln Fountain Grass		1 gal.	
10	<i>Phlox subulata</i> 'White Delight'	White Delight Phlox		1 gal.	
29	<i>Polygonatum odoratum</i> 'Variegatum'	Variegated Solomon's Seal		1 gal.	
38	<i>Polystichum acrostichoides</i>	Christmas Fern		1 gal.	
13	<i>Rudbeckia hirta</i> 'Indian Summer'	Indian Summer Black-eyed Susan		1 gal.	
TREES					
1	<i>Lagerstroemia indica</i> 'Natchez'	Natchez Crape Myrtle		8-10ft ht.	

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Figure 4.5. Westover Mews Design, Northeast green space



Zone 2B Llewellyn Mews - Design Level 5

Llewellyn Mews, Zone 3B has been taken to level 5 design and emphasizes improving focal points, adding seasonal interest and addressing stormwater runoff issues. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.6.

- ▶ Views onto the linear central green space from the east and west lack a focal point. An open arbor structure adjacent to the existing Oak will create visual interest and draw the eye into the space.
- ▶ A decorative metal fence will define the official entrance into the green space and emphasize the sense of private ownership. The openings of the fence should be centered with the arbor structure.
- ▶ Additional planting along the border of the open space will create a stronger edge and threshold.
- ▶ Flowering displays of perennials and shrubs and trees that add texture in the winter will provide interest throughout the seasons.
- ▶ An understory rain garden located along the eastern side of the green space can address the erosion and stormwater runoff that would otherwise carry topsoil and mulch off site.



Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



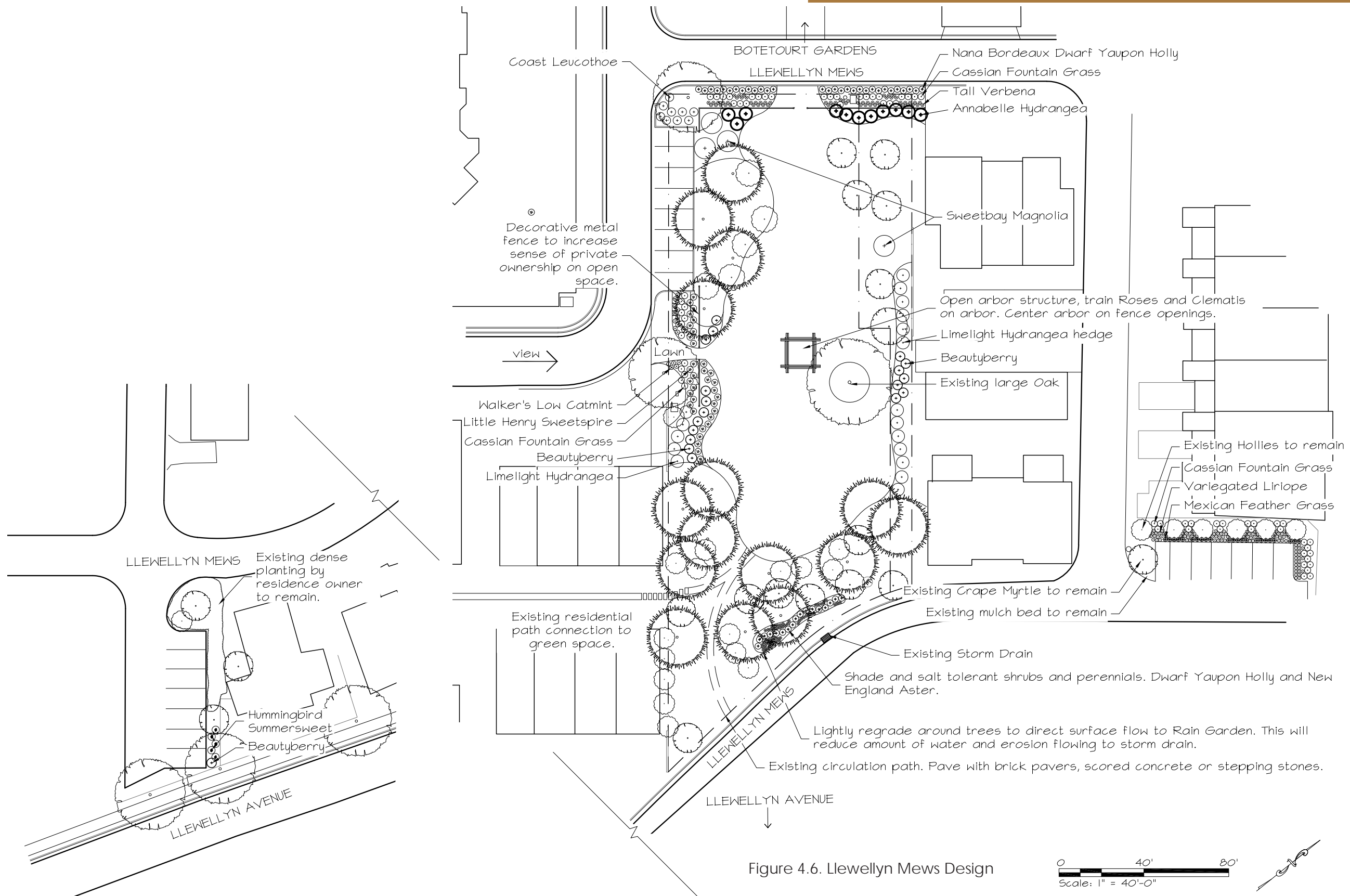


Figure 4.6. Llewellyn Mews Design

Zone 3A Ferguson Court - Design at Level 10

The design strategy for Zone 3A focuses in blending the planting aesthetic with the rest of Ghent Square. This zone is relatively small and lacks a central green space, so the planting strategy should be concentrated in a few areas. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.7.

- ▶ Ferguson Ct, the internal alleyway that borders the west side of the zone, can be improved with additional tree canopy. A consistent tree line will also define the boundary of the residential zone and enclose the space.
- ▶ Screening the utilities here will improve the aesthetic quality of the road and hide unsightly views.
- ▶ Planting more flowering shrubs and trees adjacent to the church and parking lot will revitalize the tired planting that exists and will make the zone more cohesive with the rest of Ghent Square.

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



Figure 4.7. Ferguson Court Design

Zone 3B Boissevain Mews and Olney Mews - Design at Level 10

Like Zone 3A, the design strategy for Zone 3B focuses on blending the aesthetic quality with the rest of the neighborhood. Key elements regarding these zone are listed below and all design suggestions are noted in Figure 4.8 and Figure 4.9.

- ▶ Current verges should be enhanced with additional colorful perennials and trees to create a greater sense of welcome.
- ▶ Vacant and sparse planting bed should be improved with lush vegetation to mirror the aesthetic goals of the rest of Ghent Square.
- ▶ The small roundabout, that cuts through the northern half of the zone, will benefit from additional colorful displays and shade tolerant species below the existing tree. Additional color and height will give the space a greater sense of character and will frame the view from the north and south end.

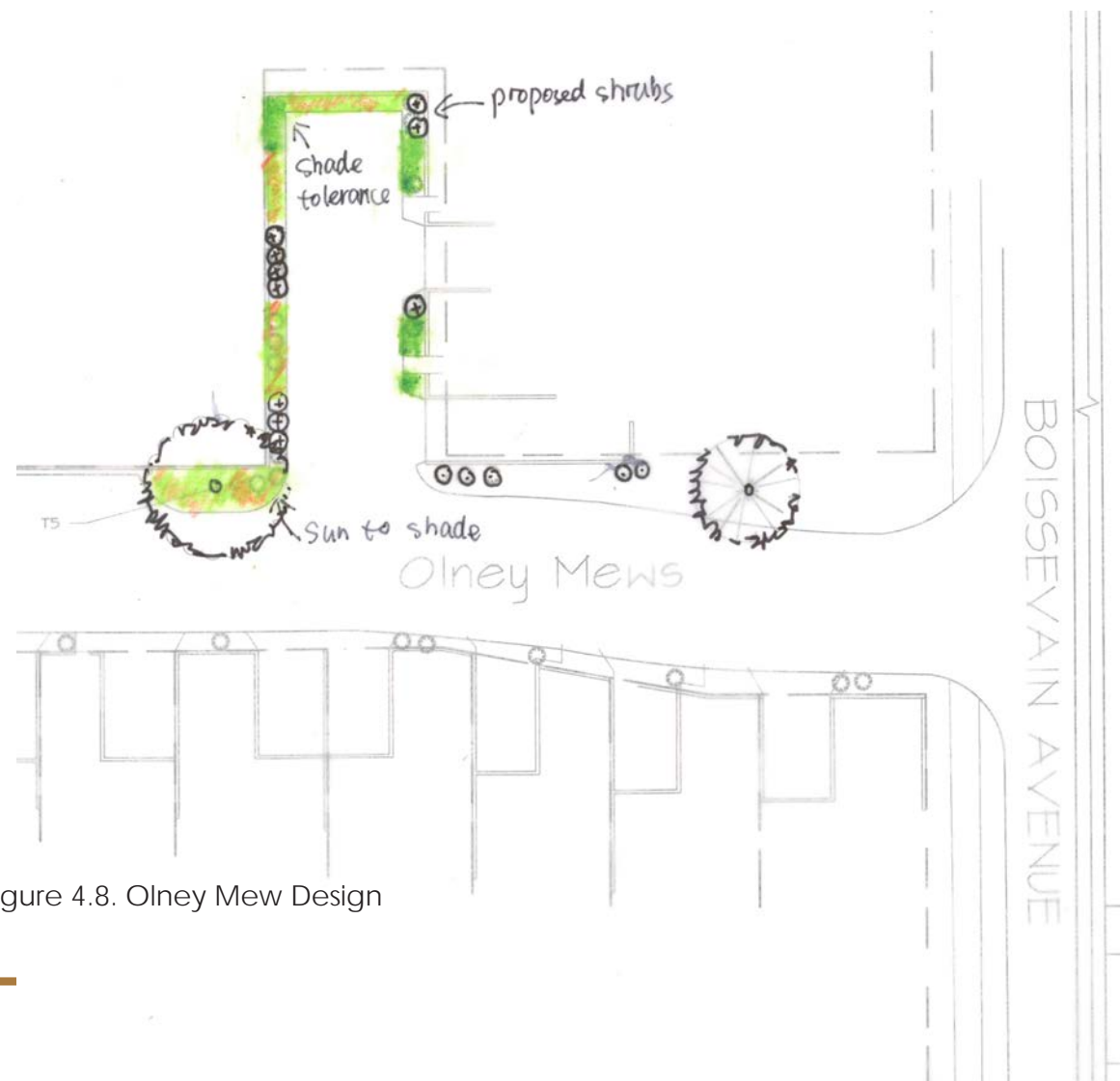


Figure 4.8. Olney Mew Design

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



Figure 4.9 Boissevain Mew Design

Zone 4A Botetourt Court - Design Level 5

Botetourt Court, Zone 4A, has been taken to level 5 design and emphasizes improving focal points within the internal green space, increasing overall vegetation throughout and adding seasonal interest. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.10.

- ▶ Views onto the linear central green space from the north and east lack a focal point. A white open arbor structure will create visual interest and draw the eye into the space from Raleigh
- ▶ Additional colorful planting strategically located will create a stronger edge and entrance. The planting will also frame the arbor structure.
- ▶ Flowering displays of perennials and shrubs and trees that add texture in the winter will provide interest throughout the seasons.
- ▶ Mulch should be replaced with sod or groundcovers to reduce sediment erosion.

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.



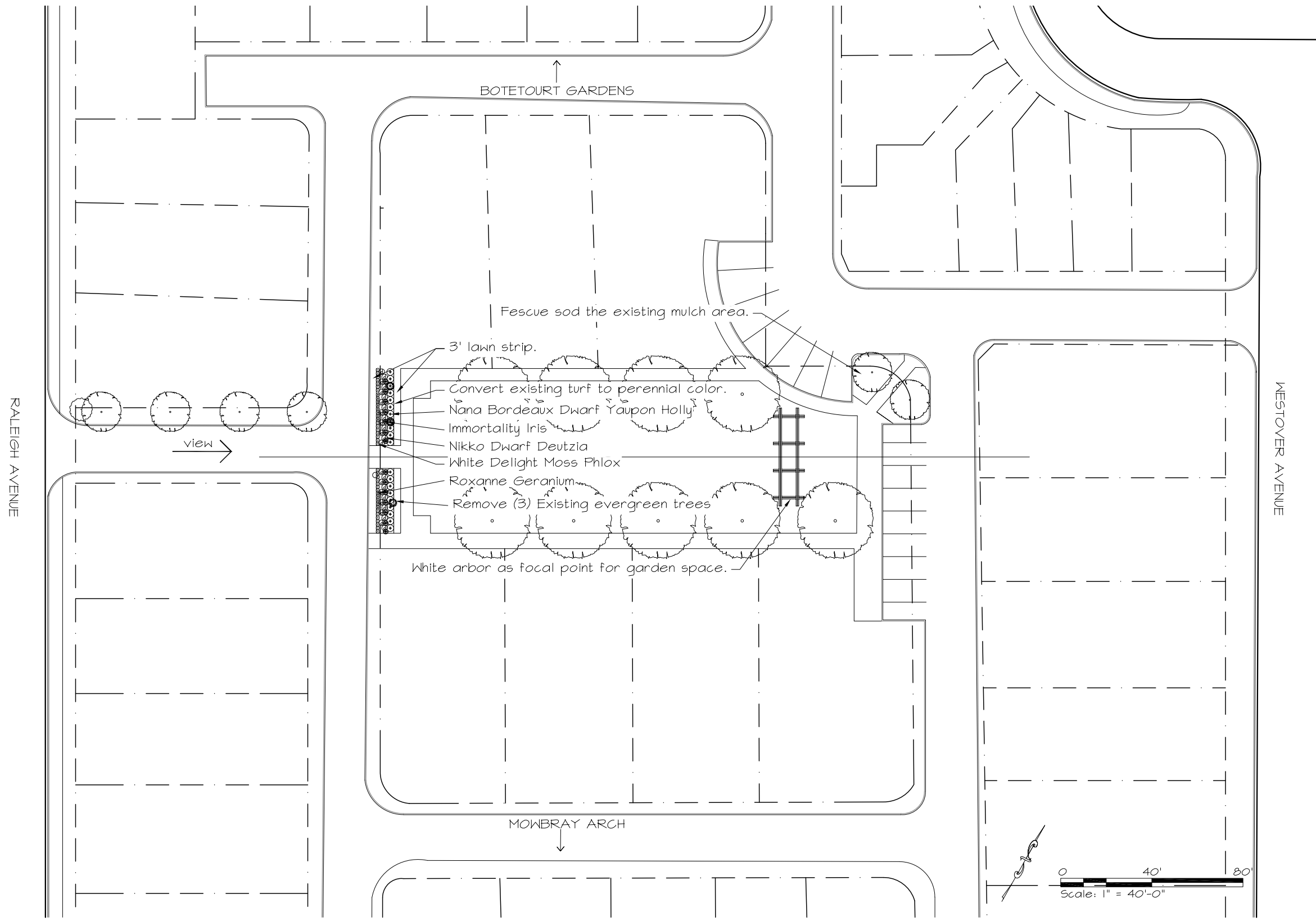


Figure 4.10 Botetourt Court Design

Zone 4B Mowbray Court - Design Level 10

The design strategy for Zone 4B focuses on blending the aesthetic quality with the rest of the neighborhood. Key elements regarding this zone are listed below and all design suggestions are noted in Figure 4.11.

- ▶ Current verges should be enhanced with additional colorful perennials and trees to create a greater sense of welcome.
- ▶ Vacant and sparse planting beds around the parking islands should be improved with lush vegetation to mirror the aesthetic goals of Ghent Square.

Residential Initiatives

- ▶ Current fencing and walls are on residential property and are in various conditions. As residential fence is replaced, it should follow the unified standard recommended for residential fences found in Section III.II Fences and Walls so that Ghent Square maintains a cohesive aesthetic.
- ▶ Flooding issues are inherently lessened with additional vegetation, particularly tree canopy, however it is important to note that the most effective approaches to stormwater management exist at the residential level. See Section III.III Flooding for more details.

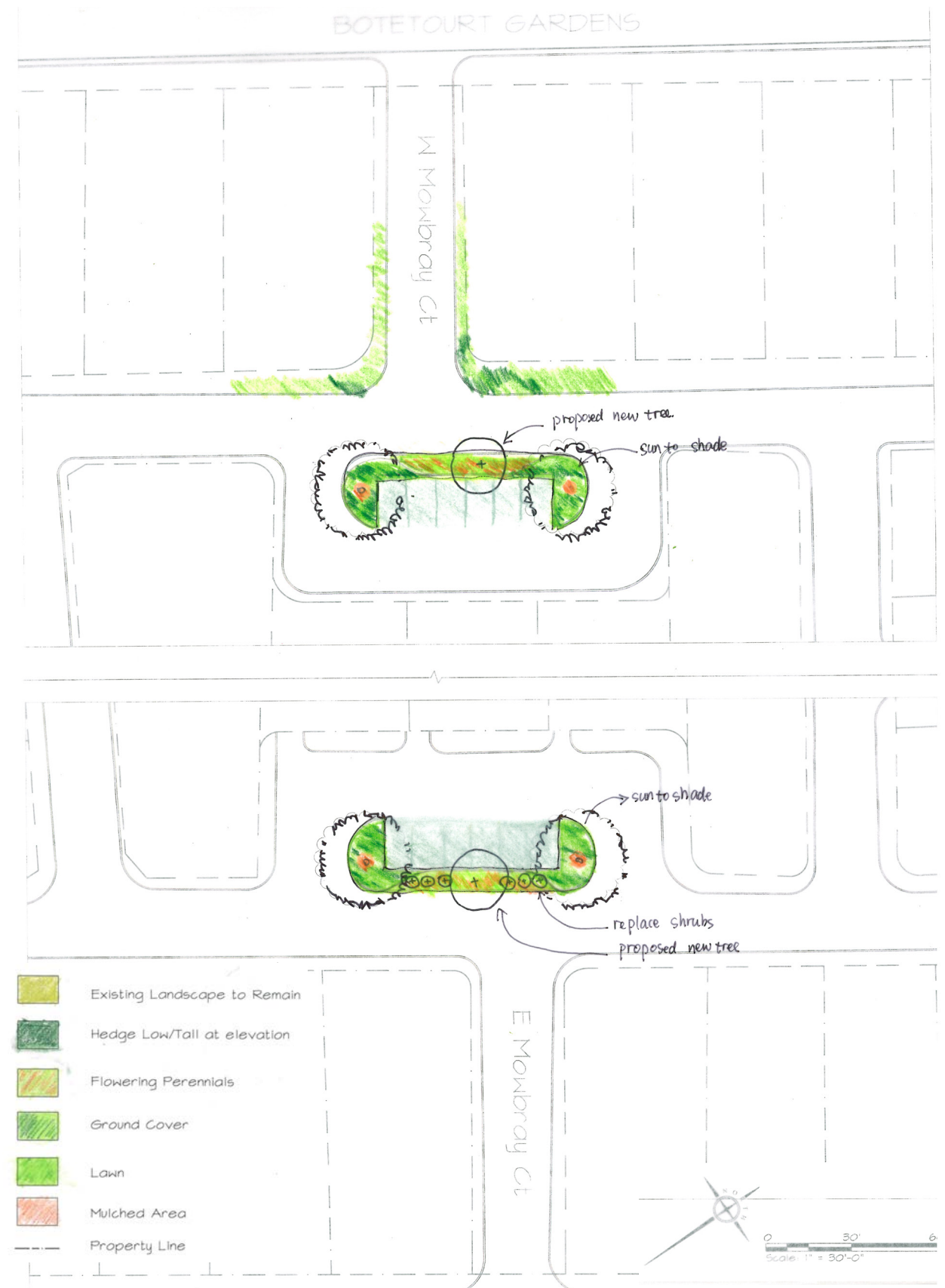


Figure 4.11 Mowbray Court Design

Zone 5 Recreation Center - Design Level 10

The design strategy for Zone 5 focuses on adding visual interest throughout the seasons, creating a strong entrance and focal points, and reviving the existing vegetation to a standard that meets the rest of Ghent Square.

- ▶ Flowering displays along the entrance walkway into the Rec Center will create a stronger and more welcoming entrance experience.

- ▶ Planting flowering shrubs and trees adjacent to the Recreation Building and Playground will revitalize the tired planting that exists and will make the zone more cohesive with the rest of Ghent Square.
- ▶ Additional planting and fence placement along the borders of the zone will also help screen the area from the Llewellyn Avenue traffic and define the boundaries of the center.
- ▶ Flowering displays of perennials and shrubs and trees that add texture in the winter will provide interest throughout the seasons.

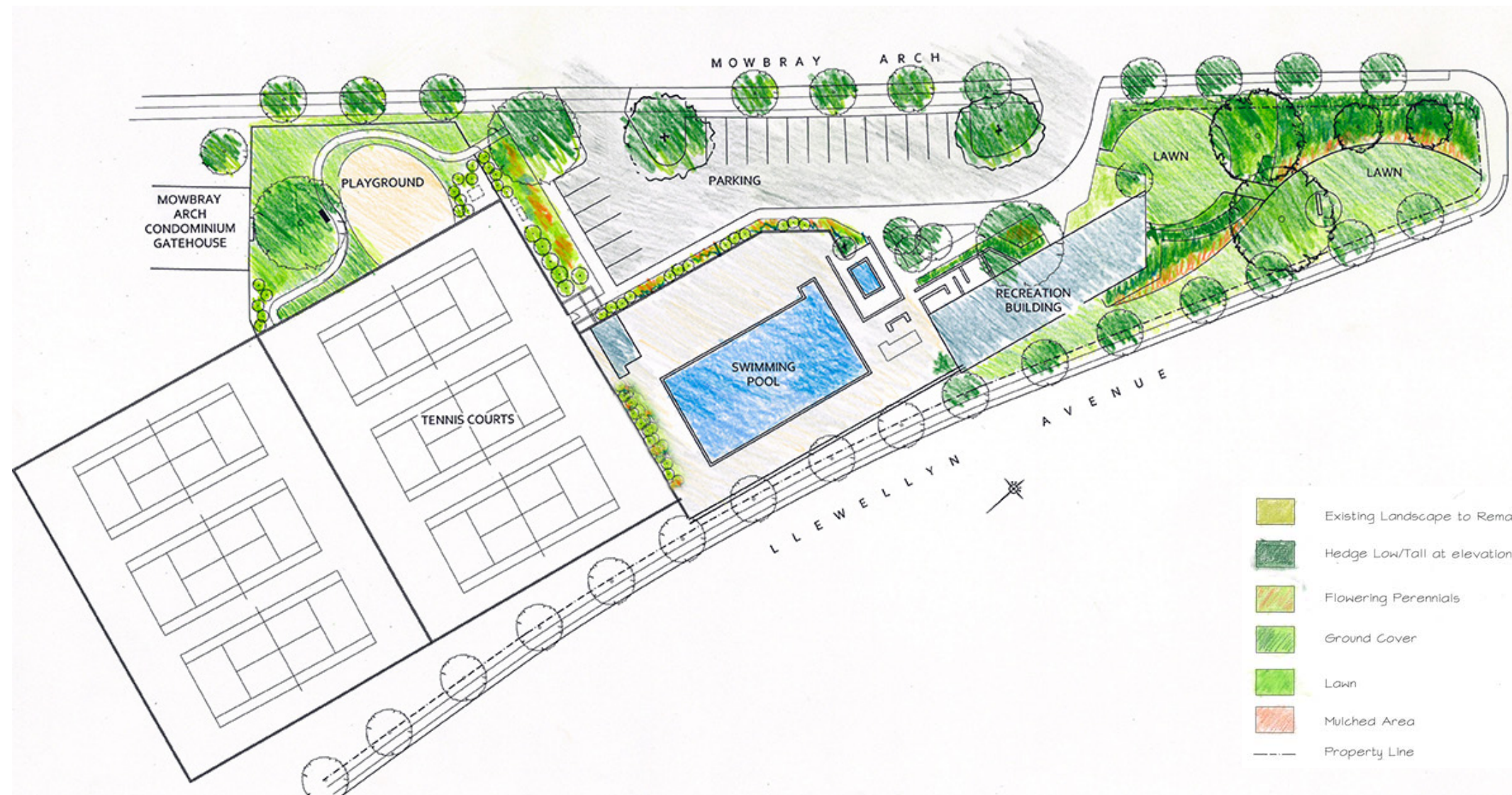


Figure 4.12 Recreation Center Design

Botetourt Gardens - Design at Level 5

The Botetourt Gardens have also been considered in terms of a planting design. The Botetourt Gardens are the central spine that connect all the zones within Ghent Square and should mimic the lush planting found throughout the neighborhood. Figure 4.13 shows a level 5 planting design plan for Botetourt Gardens. Once a planting scheme has been decided upon, it should be repeated at all other Botetourt Garden edges.

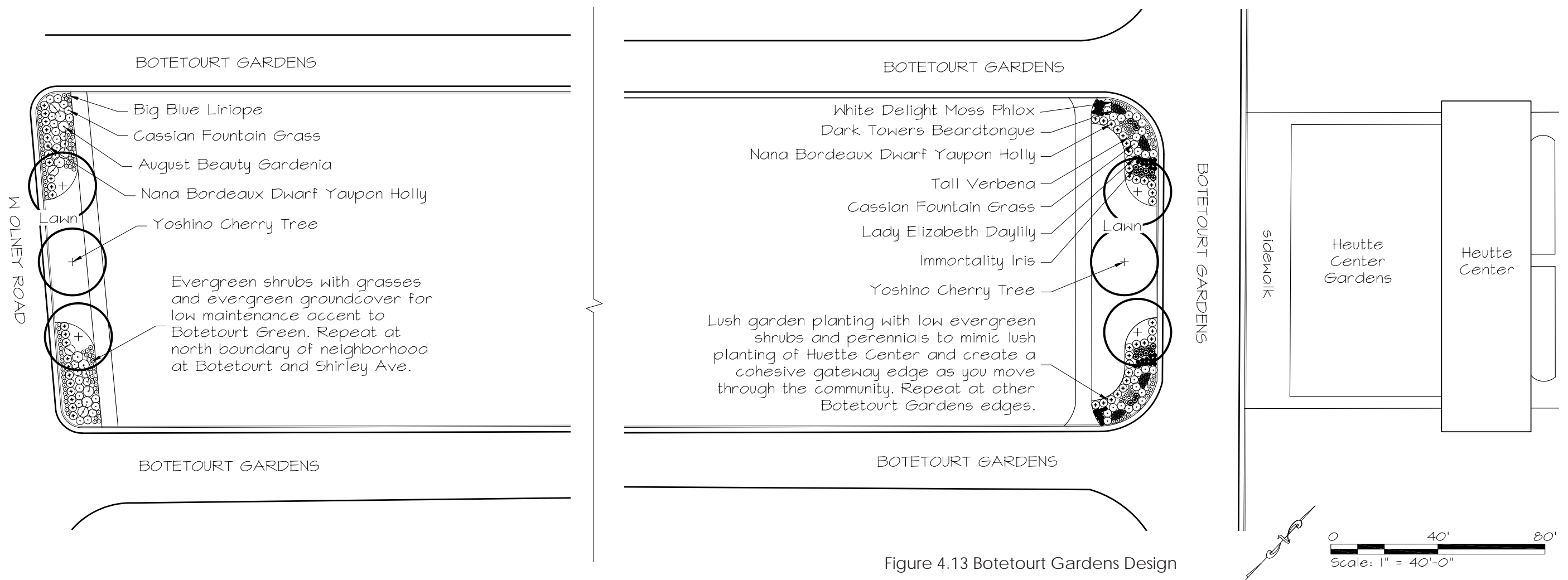
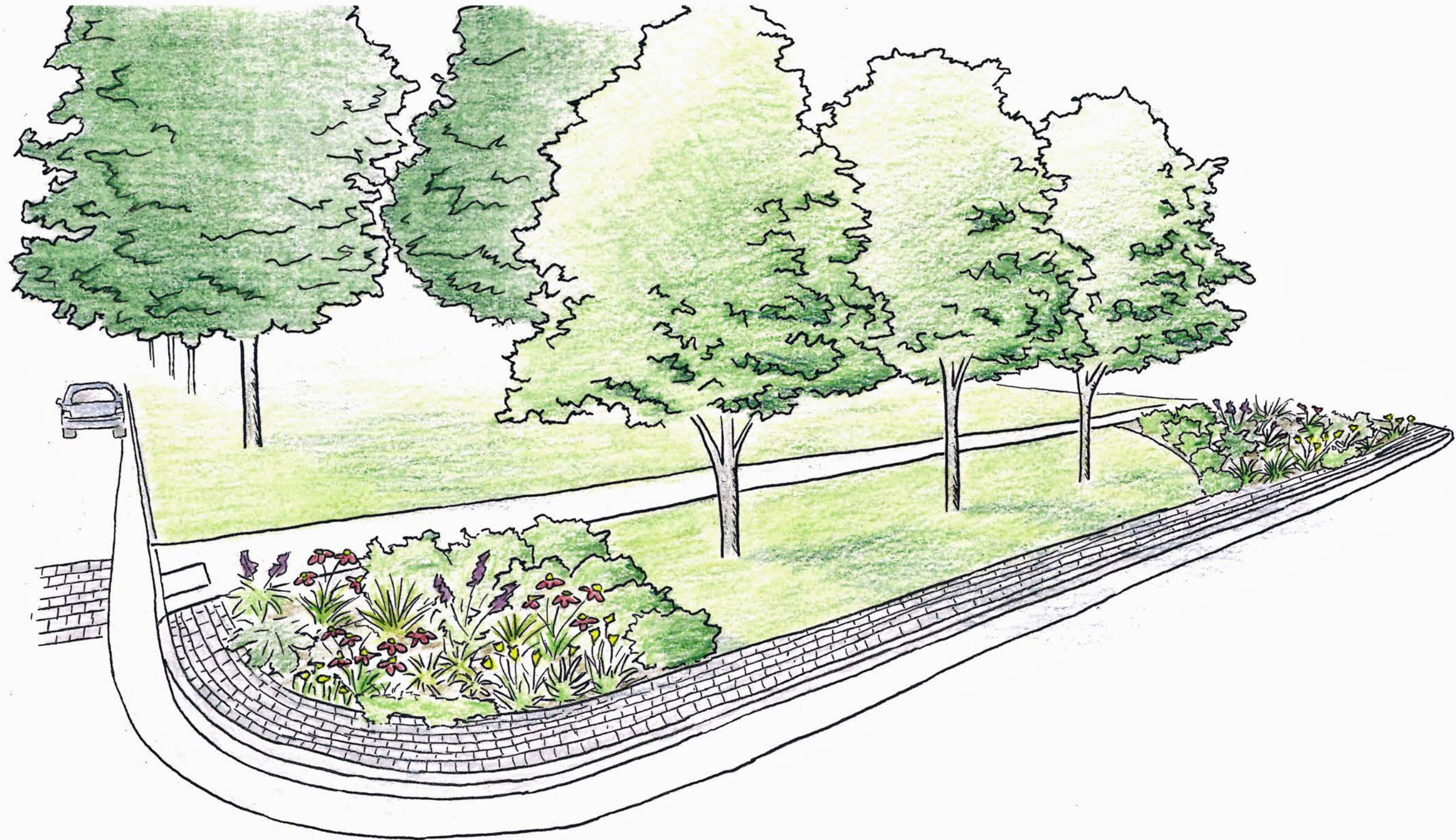


Figure 4.13 Botetourt Gardens Design







V. CONCLUSION

We would like to thank the Ghent Square Community Association Staff and Committee Members, as well as all Ghent Square residents who participated in our survey. We would particularly like to thank the following people for your valuable insights, observations and suggestions:

Jennifer Byrd (Former GSCA Committee Member),
Lisa Dailey (GSCA Staff),
Cortney Dees (GSCA Committee Member),
Jim Gehman (GSCA Committee Member),
Kristina Griffith (GSCA Committee Member),
R. Kevin Kearney (GSCA Committee Member),
Diana Kreider (GSCA Staff),
Milt Long (GSCA Committee Member),
Amy Lorvidhaya (GSCA Committee Member),
Christopher McKinnon (GSCA Committee Member),
Peter Seay (Former GSCA Committee Member),
Marilyn Stephens-Booker (GSCA Committee Member), and
Joseph Tillson (Former GSCA Committee Member).

Ghent Square, with its carefully cultivated mix of natural and urban elements, is an incredible neighborhood and a tremendous asset for the City of Norfolk. We have truly enjoyed getting to know you and the neighborhood, and we appreciate the opportunity to continue our collaboration as you begin to implement the Master Plan. Our intention has been to create a living document that provides concrete strategies to specific problems while allowing for growth, changing priorities and emerging technologies. We look forward to working with you over the coming years to effect the rejuvenation of the neighborhood's landscape.

It was a pleasure to work on this Master Plan and great to know this beautiful neighborhood.

Sincerely,
Ann P. Stokes

VI. APPENDIX

PRODUCT RESOURCES

Batchelder & Collins Inc.
<http://757brick.com/>

Superior Marble & Stone Inc.
<http://superiorstone.net/>

Wolf Decking
<http://www.wolfhomeproducts.com/deckingandporch>

Walpole Outdoors
<https://www.walpolewoodworkers.com/>

PLANT RESOURCES

Bennett's Creek Nursery
<http://www.bcnursery.com/Default.aspx>

Chesapeake Bay Native Plant Center
<http://www.nativeplantcenter.net/>

Knott's Creek Nursery
<http://knottscreeknursery.com/>

Lancaster Farms
http://www.lancasterfarms.com/lf_site_redesign/availability.php

Missouri Botanical Garden – Plant Finder
<http://www.missouribotanicalgarden.org/planfinder/planfindersearch.aspx>

Monrovia Plant Catalog
<http://www.monrovia.com/plant-catalog/>

Native Plants for Southeast Virginia Guide – This guide showcases the wide variety of plants native to Southeast Virginia, including the Hampton Roads.
<http://www.deq.virginia.gov/Portals/0/DEQ/CoastalZoneManagement/Native-Plants-for-Southeast-Virginia-Guide.pdf>

NC State University – Plants
<https://plants.ces.ncsu.edu/>

Virginia Cooperative Extension – Trees and Shrubs that Tolerate Saline Soils and Salt Spray Drift
https://pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/430/430-031/430-031_pdf.pdf

STORMWATER RESOURCES

The City of Norfolk – Office of Resilience
<https://www.norfolk.gov/resilience>

The City of Norfolk – Retain Your Rain
<https://www.norfolk.gov/index.aspx?nid=3700>

The City of Norfolk – Retain Your Rain – Rainwater Runoff Calculator
<http://orf.maps.arcgis.com/apps/webappviewer/index.html?id=7e8dc203eadf45b2b4422095f44b194c>

The City of Norfolk – Stormwater
<https://www.norfolk.gov/index.aspx?NID=1689>

Virginia Conservation Assistance Program - The Virginia Conservation Assistance Program (VCAP) is an urban cost-share program that provides financial incentives and technical and educational assistance to property owners installing eligible Best Management Practices (BMP's) in Virginia's Chesapeake Bay Watershed. Presented by the Virginia Association of Soil and Water Conservation Districts.
<http://vaswcd.org/vcap>

Wetlands Watch
<http://wetlandswatch.org/>

ADDITIONAL RESOURCES

The Fred Heutte Center
<http://www.genserva.com/fhcgarden/>

Ghent Square Master Plan Resident Questionnaire

Ghent Square Property.pptx – PowerPoint document created by Chris McKinnon July 2016