



KENT-VALENTINE HOUSE GARDEN PLAN

GARDEN CLUB OF VIRGINIA — CITY OF RICHMOND CERTIFICATE OF APPROPRIATENESS REVIEW MATERIALS

Nelson Byrd Woltz Landscape Architects

1. CERTIFICATE OF APPROPRIATENESS APPLICATION FORM AND PROJECT DESCRIPTION



Property (location of work)

Property Address: 12 E Franklin Street, 23219

Current Zoning: RO-3

Historic District: Block 0-100 East Franklin Street Historic District

Application is submitted for: (check one)

- Alteration
- Demolition
- New Construction

Project Description (attach additional sheets if needed):

Garden and Landscape improvements; see attached narrative.

Applicant/Contact Person: Jennifer Lauer on behalf of the Garden Club of Virginia

Company: Nelson Byrd Woltz Landcape Architects

Mailing Address: 310 E Main Street

City: Charlottesville State: VA Zip Code: 22902

Telephone: (332) 330-4022

Email: JLAUER@NBWLA.COM

Billing Contact? No Applicant Type (owner, architect, etc.): Architect

Property Owner: Garden Club of Virginia

If Business Entity, name and title of authorized signee: Kris Carbone, GCV President

Mailing Address: 12 E Franklin Street

City: Richmond State: VA Zip Code: 23219

Telephone: (804) 643-4137

Email: kcarbone66@icloud.com

Billing Contact? Yes

****Owner must sign at the bottom of this page****

Acknowledgement of Responsibility

Compliance: If granted, you agree to comply with all conditions of the certificate of appropriateness (COA). Revisions to approved work require staff review and may require a new application and approval from the Commission of Architectural Review (CAR). Failure to comply with the conditions of the COA may result in project delays or legal action. The COA is valid for one (1) year and may be extended for an additional year, upon written request and payment of associated fee.

Requirements: A complete application includes all applicable information requested on checklists available on the CAR website to provide a complete and accurate description of existing and proposed conditions, as well as payments of the application fee. Applications proposing major new construction, including additions, should meet with staff to review the application and requirements prior to submitting. Owner contact information and signature is required. Late or incomplete applications will not be considered.

Zoning Requirements: Prior to Commission review, it is the responsibility of the applicant to determine if zoning approval is required. Application materials should be prepared in compliance with zoning.

Property Owner Signature: _____

Kris Carbone

Date: _____

9/8/25

Written Description:

The current garden and exterior landscape of the Kent-Valentine House property includes a rear garden and parking area off of Miss Scotts Alley, a wooden fence along the western property edge (1973), a brick paved rear entrance court off the Alley (1996), reconstructed perimeter brick wall and iron fencing (2009), and a brick entrance walk off of East Franklin St. flanked by lawn and planting beds (2009-18).

Mature trees on-site include diverse species such as southern magnolias, dogwood, Japanese maple, crape myrtle, and yellowwood. A detailed tree health assessment was completed by certified arborists with Bartlett Tree Experts in April 2025. The assessment indicated that the existing yellowwood and Japanese maple trees on-site are in poor health and will be flagged for removal pending further evaluation. The Garden Club of Virginia's consulting landscape architect, Nelson Byrd Woltz, has assessed that much of the garden is currently dominated by invasive and non-native species, particularly English ivy.

The comprehensive design is in progress to re-imagine the garden and exterior landscape of the property to better serve the mission of the Garden Club of Virginia and increase opportunities for site interpretation, ecological enhancement, and accessibility. The proposed design changes to the Kent-Valentine House Garden are compatible with the character of the historic house by establishing a refined formal landscape in the front, with a more engaging garden experience along the west side of the house with improved educational opportunities for Garden Club visitors, members, and staff. The new plan will prioritize managing the removal of invasive species and use native plants and pollinators to improve the ecological function of the site as a remnant garden 'oasis' within downtown Richmond. The design changes at the rear of the site will provide safer vehicular and pedestrian access for visitors and staff.

The project scope is limited to the garden and landscape. Specifically, the scope of work includes the following:

- Re-organizing the entry drive and parking off of Miss Scotts Alley to include 90 degree parking spaces to improve parking access and functionality. Parking will include 1 van-accessible ADA parking space with an accessibility aisle.
- New granite curbing within the parking area.
- Improving site pathways and circulation to ensure a minimum 3' wide path for accessibility throughout the newly proposed native plants garden, to consist of stabilized decomposed granite with steel edging.

- Subtle, warm path down-lighting to enhance site security and safety as well as downlighting on the large, mature southern magnolias to highlight their significance to the historic property. Limited uplighting on the rear brick wall will be used only during occasional evening events hosted by the Garden Club of Virginia. Please see lighting plans and product cutsheets enclosed.
- A newly designed freestanding hanging sign located along East Franklin Street. NBW is working with appropriate city agencies to obtain a variance to locate the sign within the set-back for improved visibility among passers-by. If the variance is not approved, the design team will shift the sign beyond the set-back and re-design the geometry of the front lawn panel to accommodate the post. The sign panel will be constructed of painted aluminum with a clear coating, with wrought iron supporting post and filigree elements inspired by the existing iron-work of the Kent-Valentine House fence and front entry gate; graphics for the sign are based on the Garden Club of Virginia's branding standards and are in progress of being reviewed by GCV staff.
- Improving the formal entry lawn and surrounding planting beds along the Kent-Valentine House entry façade on East Franklin Street to remove english ivy and replace with native perennials and shrubs appropriately scaled to the building and its surroundings. The existing brick entry path to the building will integrate a small bluestone marker within the groundplane inscribed with GCV's mission; the rest of the brick pathway will otherwise remain undisturbed.
- Preserving and protecting the existing two (2) large southern magnolia trees along E. Franklin St. in accordance with the site's DHR Easement.
- Re-designing the planting beds in the side and rear garden areas to include pollinator-enhancing species that are ecologically appropriate and native to the local region.
- Addition of a small micro-bioretention area adjacent to the parking with appropriate plantings to capture and manage stormwater runoff from the driveway and parking on-site as well as capture roof runoff.
- 11 new trees to improve site-wide canopy, reinforcing the property's status as a rare example of a downtown Richmond property with substantial tree canopy cover
- A proposed planting plan to include shrubs and perennials that reflect Richmond's ecological heritage as a 'botanical meeting ground,' where species from both the Piedmont and Coastal Plain physiographic provinces mingle along the Fall Line.
- Limited new site furnishings (table, chair and bench seating)
- New timber enclosure fence to screen existing utilities on the east side of the house
- 1 new Petersburg granite 'boulder' fountain as an ecological feature within the garden to support birds and other wildlife

Consideration of City of Richmond Design Review Guidelines:

- The proposed garden design along E Franklin Street responds to the formality of the Kent-Valentine House's historic façade, enhancing the streetscape and adding an elegant landscape intervention to the district. Parking remains tucked behind the historic brick wall in the back of the property, which will be carefully protected and remain unchanged throughout the construction process (page 76).
- The plans select plant materials that are native to Richmond and the surrounding region, appropriate to the climate, soils, and light conditions of the site, and provide a sense of intimate scale and seasonal interest within the garden (page 76-77).
- Proposed lighting is subtle, primarily located along the western and northern sides of the property, with limited visibility from the street. Gentle downlighting on historic large magnolias will bathe them in a subtle glow that highlights these important parts of the property's heritage without being a distracting or intrusive element along the streetscape (page 76).
- Mature trees in the back parking area are proposed to be removed due to safety issues with sidewalk encroachment and/or health assessments from the consulting arborist. The plan proposes re-planting new trees within the parking area and throughout the property, while retaining three large historic Southern magnolias visible from E. Franklin Street (page 77).
- Pedestrian and vehicular paving in the back of the property retains the existing materials of gravel and brick; proposed new curbing will be granite in keeping with sidewalk and curbs guidelines (page 76).
- The concept plan considers notes on Freestanding Signs (page 74).
- Original walls and fencing will be retained (page 78).

2. EXISTING CONDITIONS PHOTOS AND HISTORIC DOCUMENTATION

PHOTO 1

*View From East Franklin Street
All Existing Condition Photos
Taken May 01, 2024*

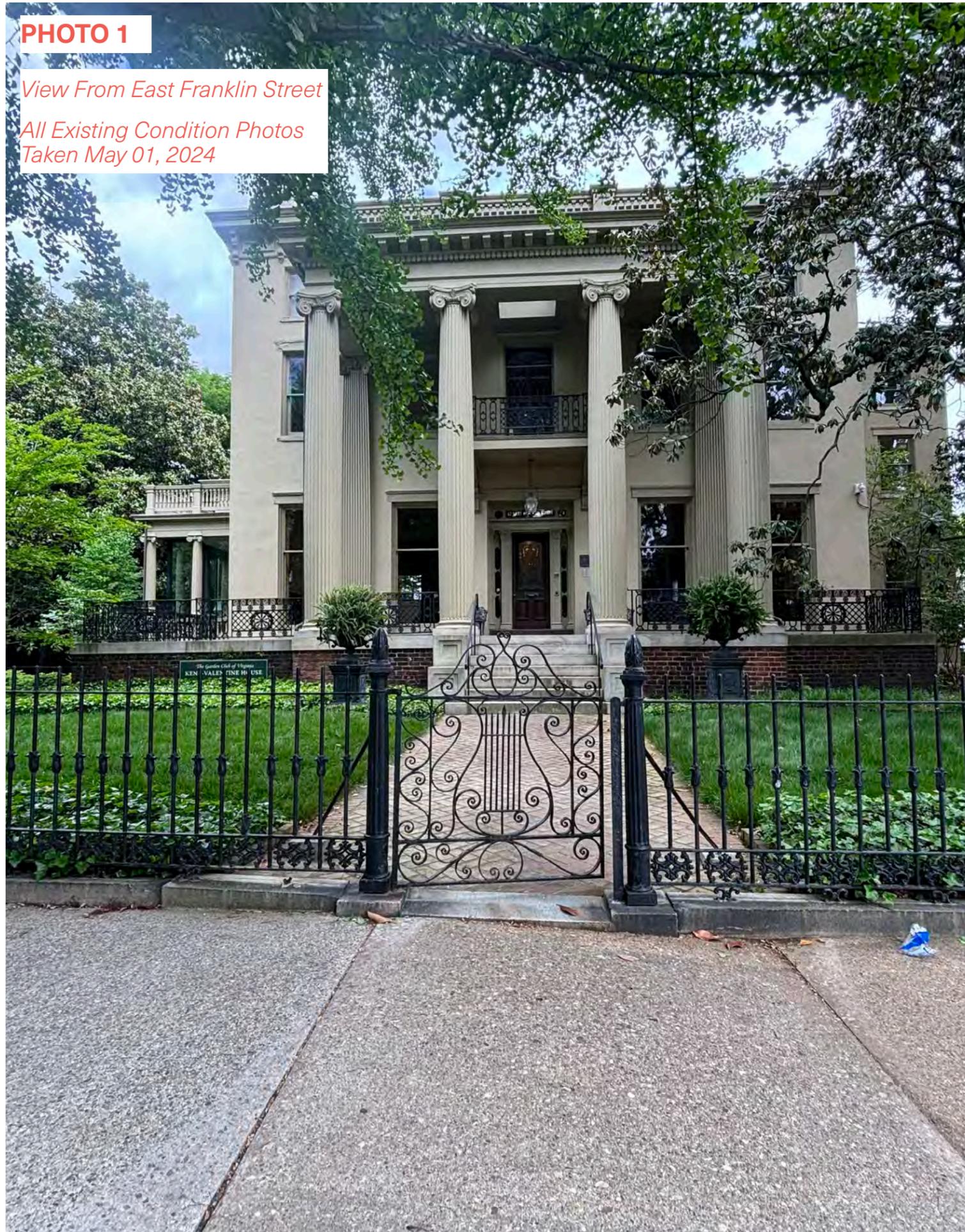


PHOTO 2

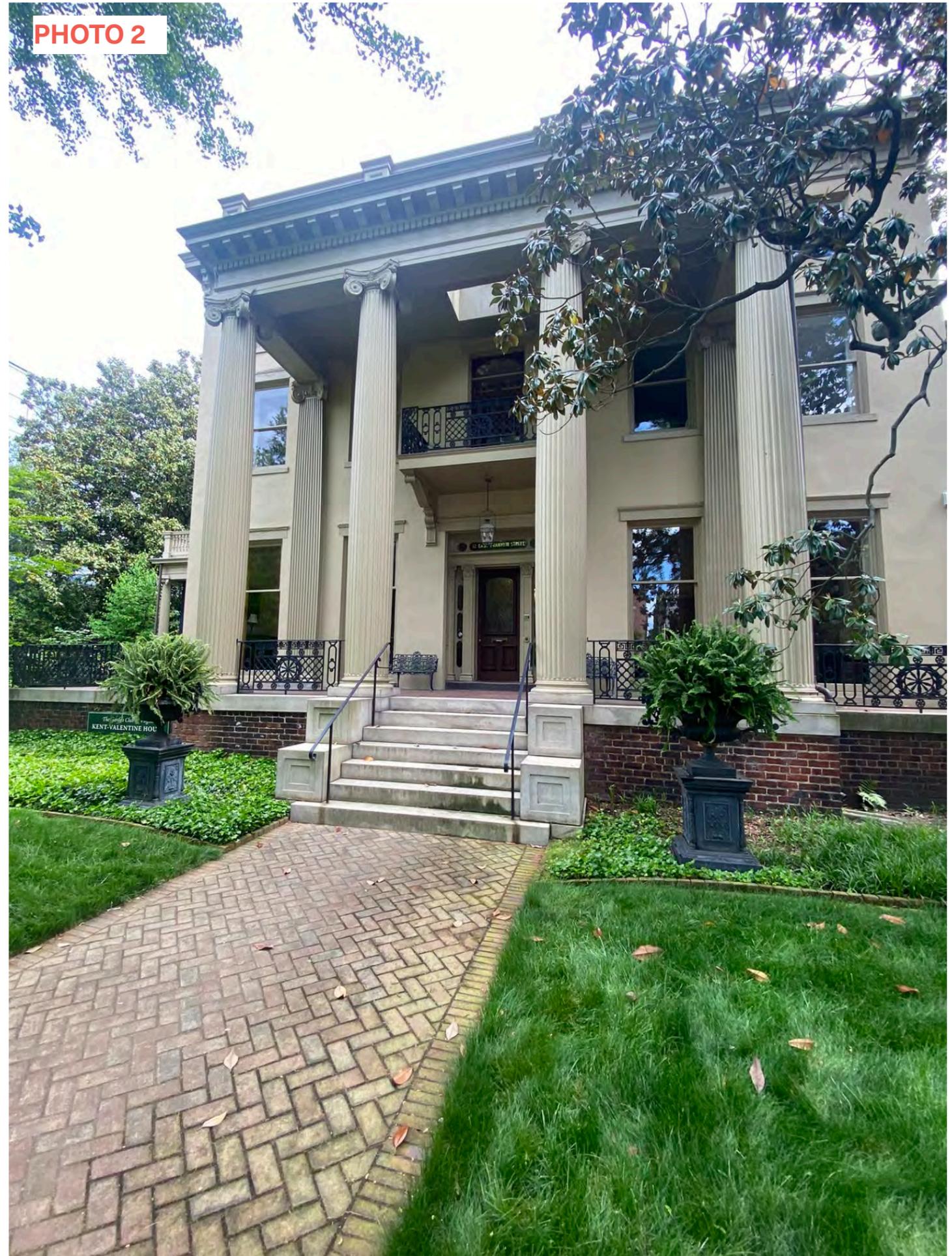


PHOTO 3

*View From Southwest
Corner of Garden*



PHOTO 4

*View of Southeast
Corner of Garden*



PHOTO 5

*View of Existing
Mechanical and Utilities
on East Side of House*



PHOTO 6

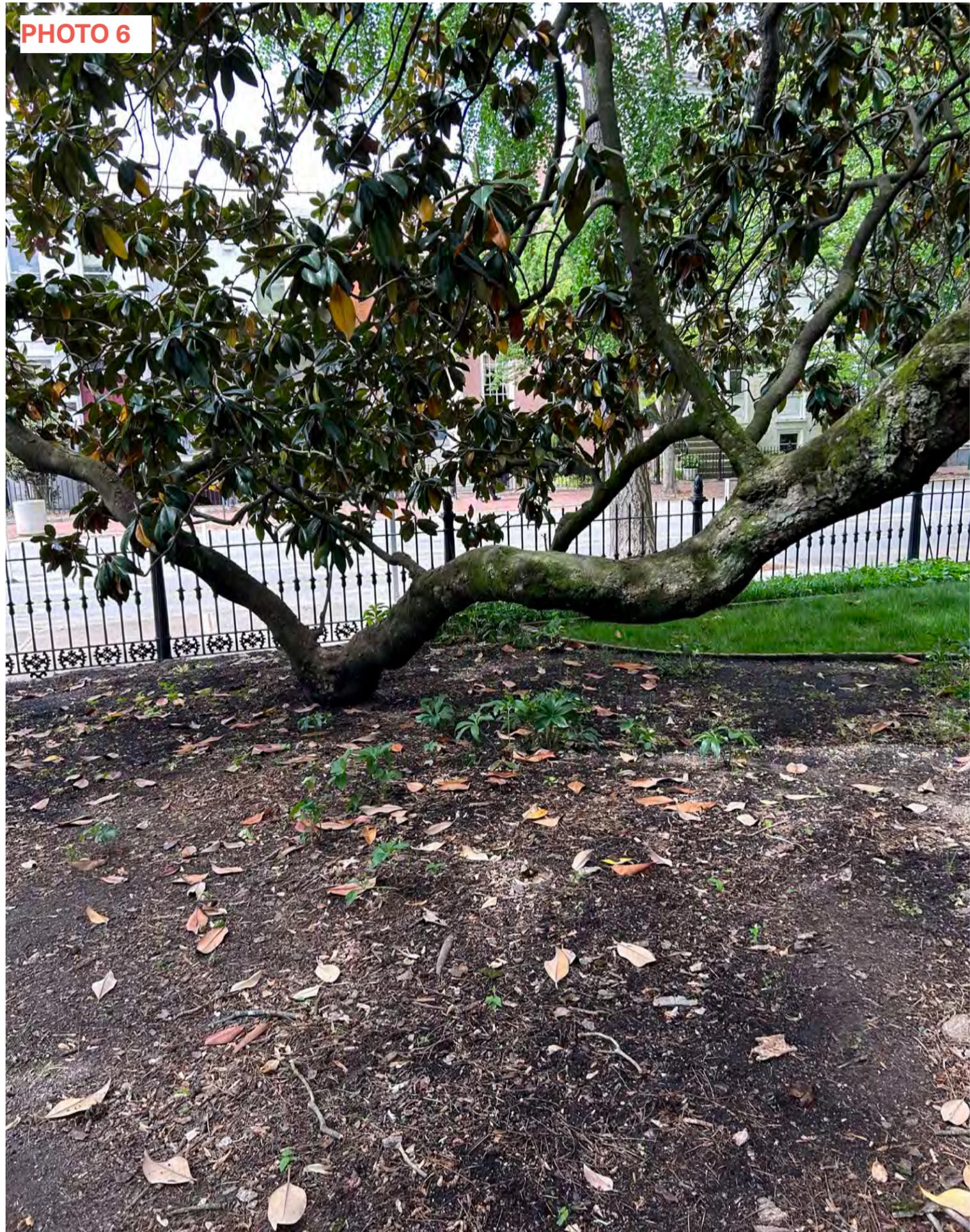


PHOTO 7



PHOTO 8

View of Westside of Garden



PHOTO 9

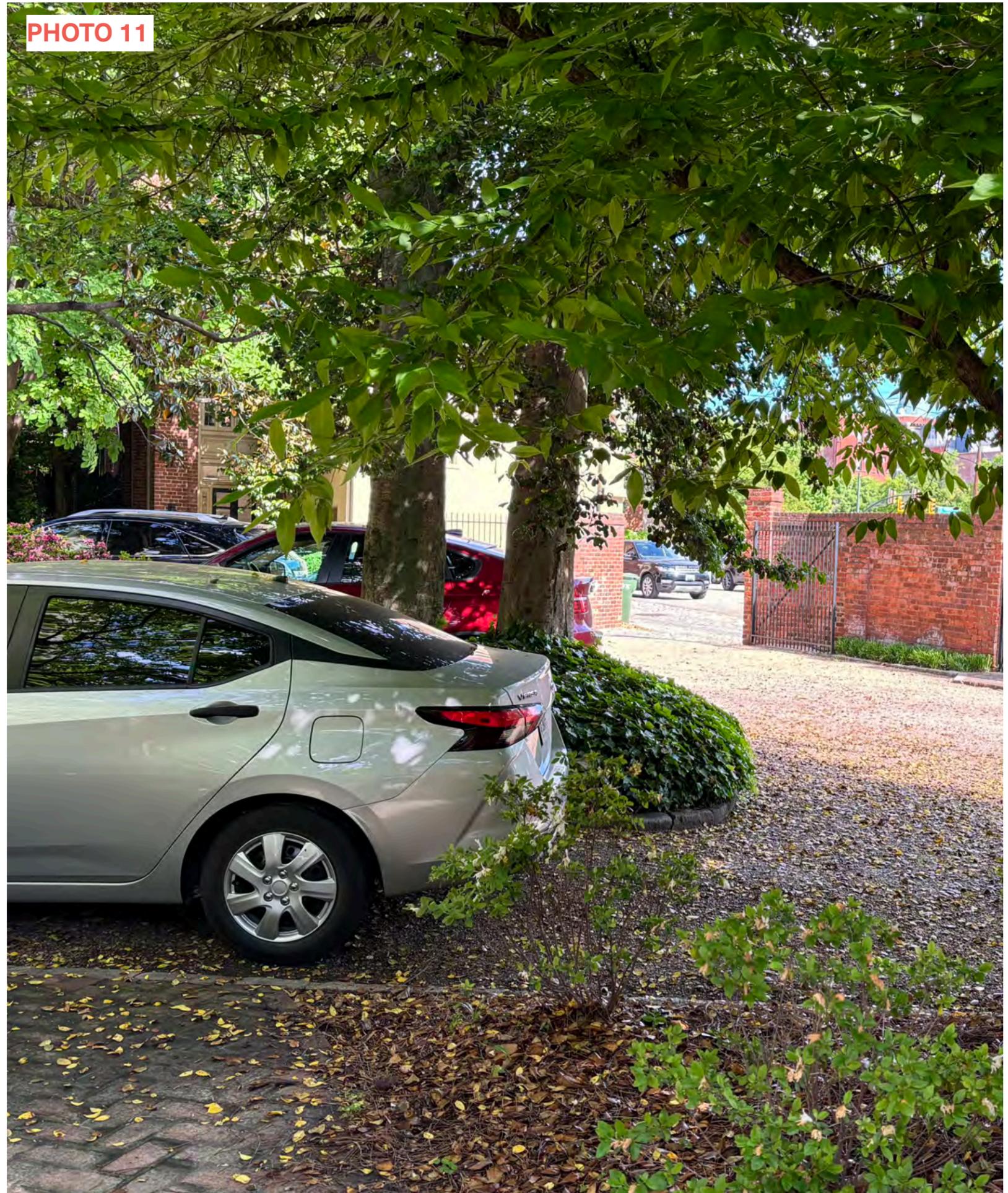


PHOTO 10

*View of Drive & Parking
off of Miss Scott Alley*

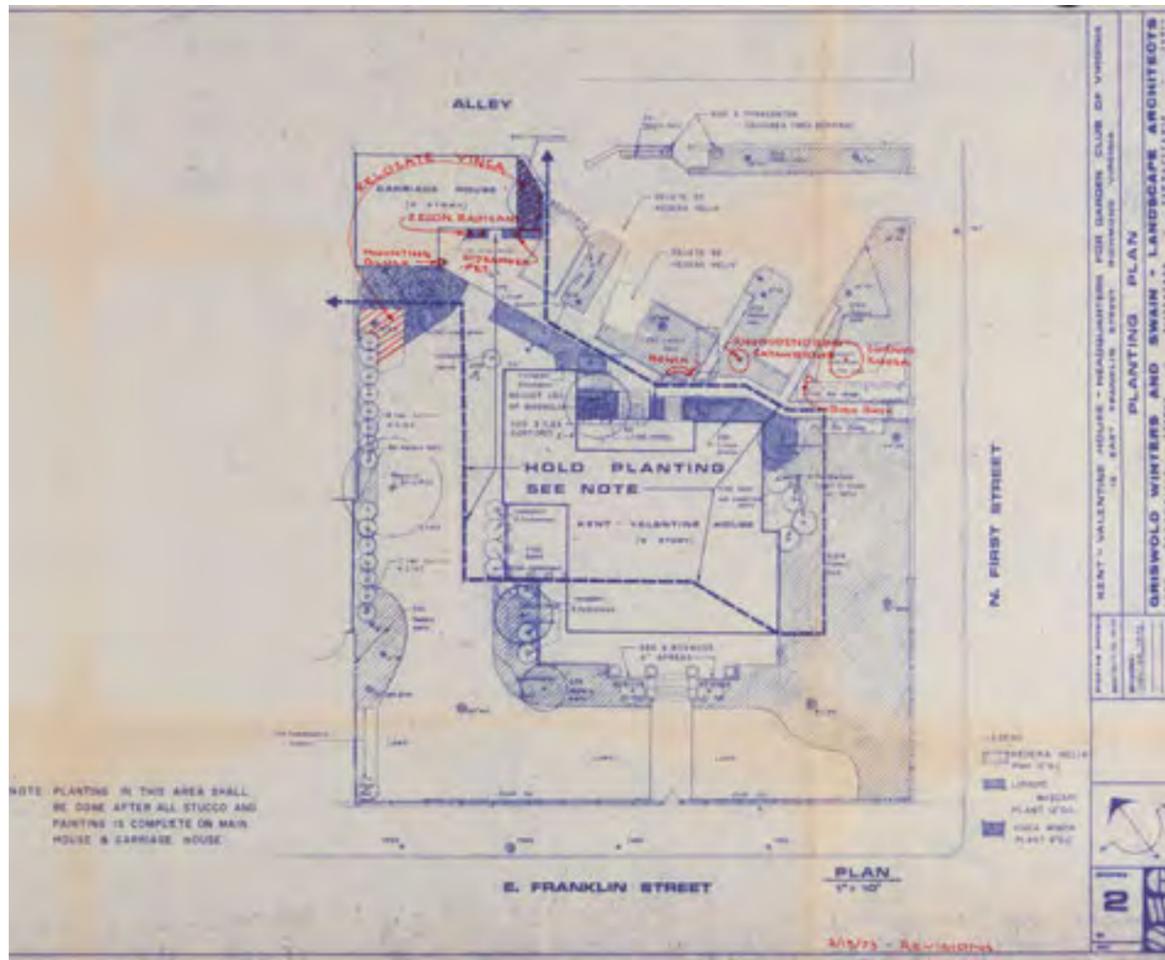
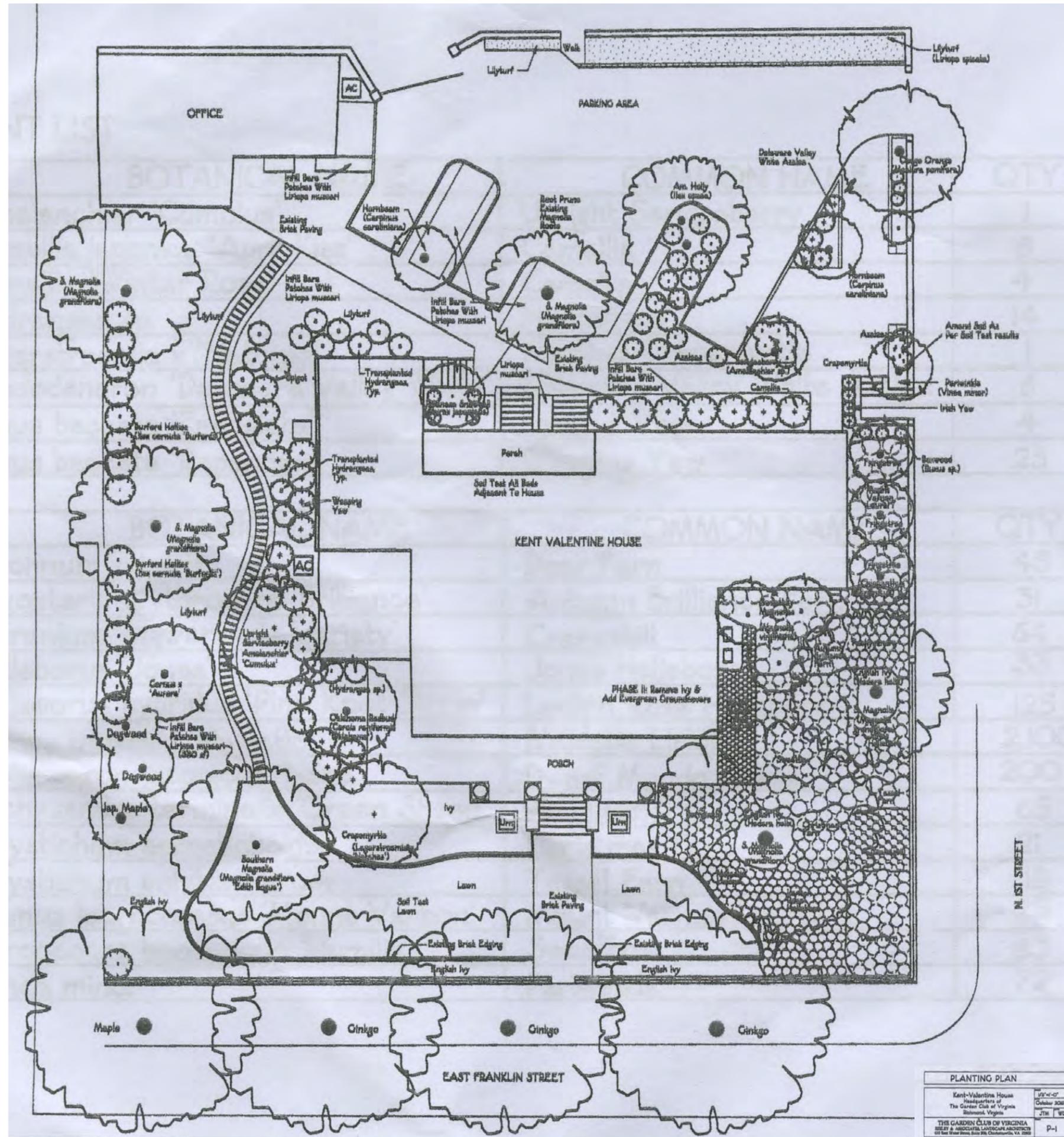
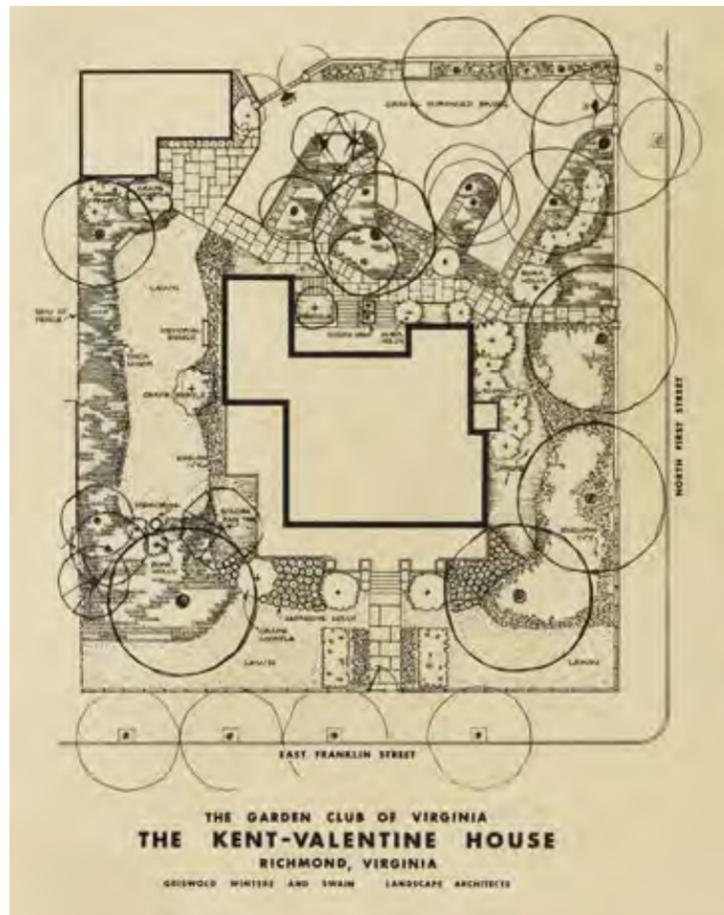


PHOTO 11



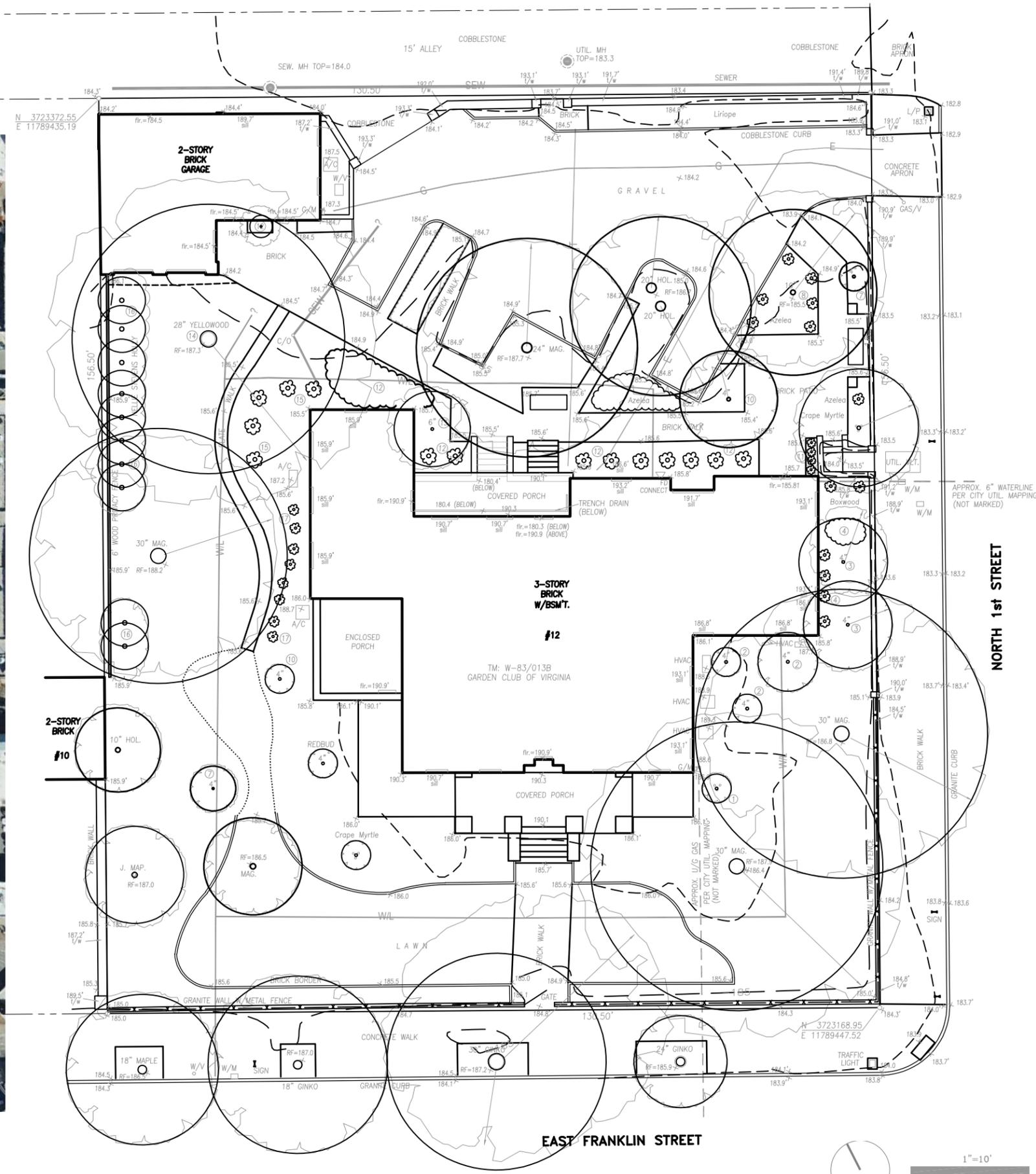
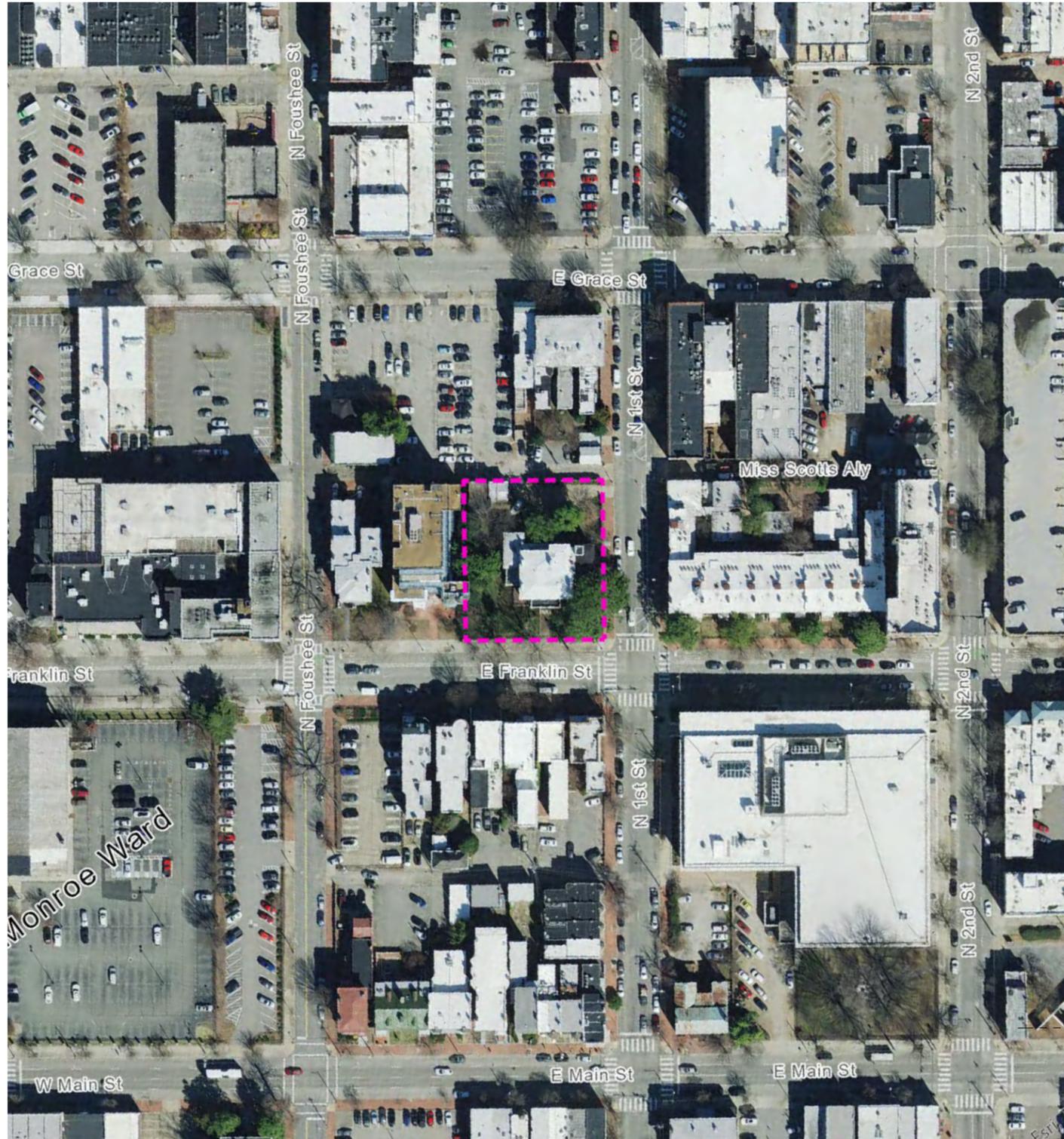
PHOTOS 12-13

Reproductions of the Record of Previous Landscape Alterations



3. DESIGN DRAWINGS, STUDIES AND PRECEDENT IMAGERY

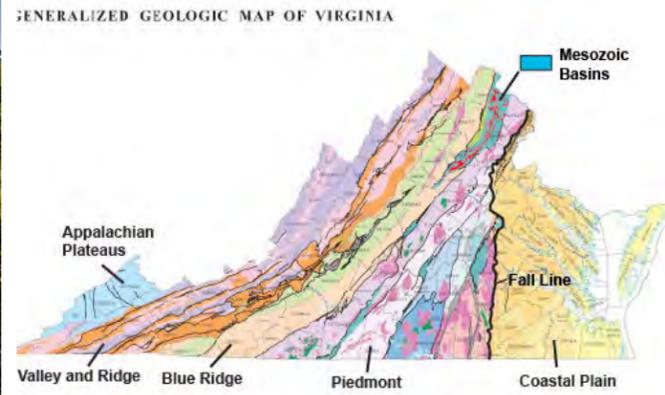
GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE
GEOGRAPHIC CONTEXT



GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE: A BOTANICAL MEETING GROUND

Legend

- | | |
|-----------------------------------------|---------------------------------------|
| 1. Brick entry path with engraved paver | 10. Stepping stones |
| 2. Lawn panel | 11. Rain garden |
| 3. Garden art | 12. Gravel Parking |
| 4. Margaret Bemiss Dogwood | 13. ADA Spot |
| 5. Seating area | 14. ADA Pedestrian ramp |
| 6. Fountain | 15. Bluestone pavers |
| 7. Accessible 'river' path | 16. ADA entrance with elevator access |
| 8. Interpretive area, casual seating | 17. Protected historic magnolias |
| 9. Brick patio | |



GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE
EXISTING LIGHTING/SECURITY CONDITION

LEGEND

SC EXISTING SECURITY CAMERA ● EXISTING LIGHTING

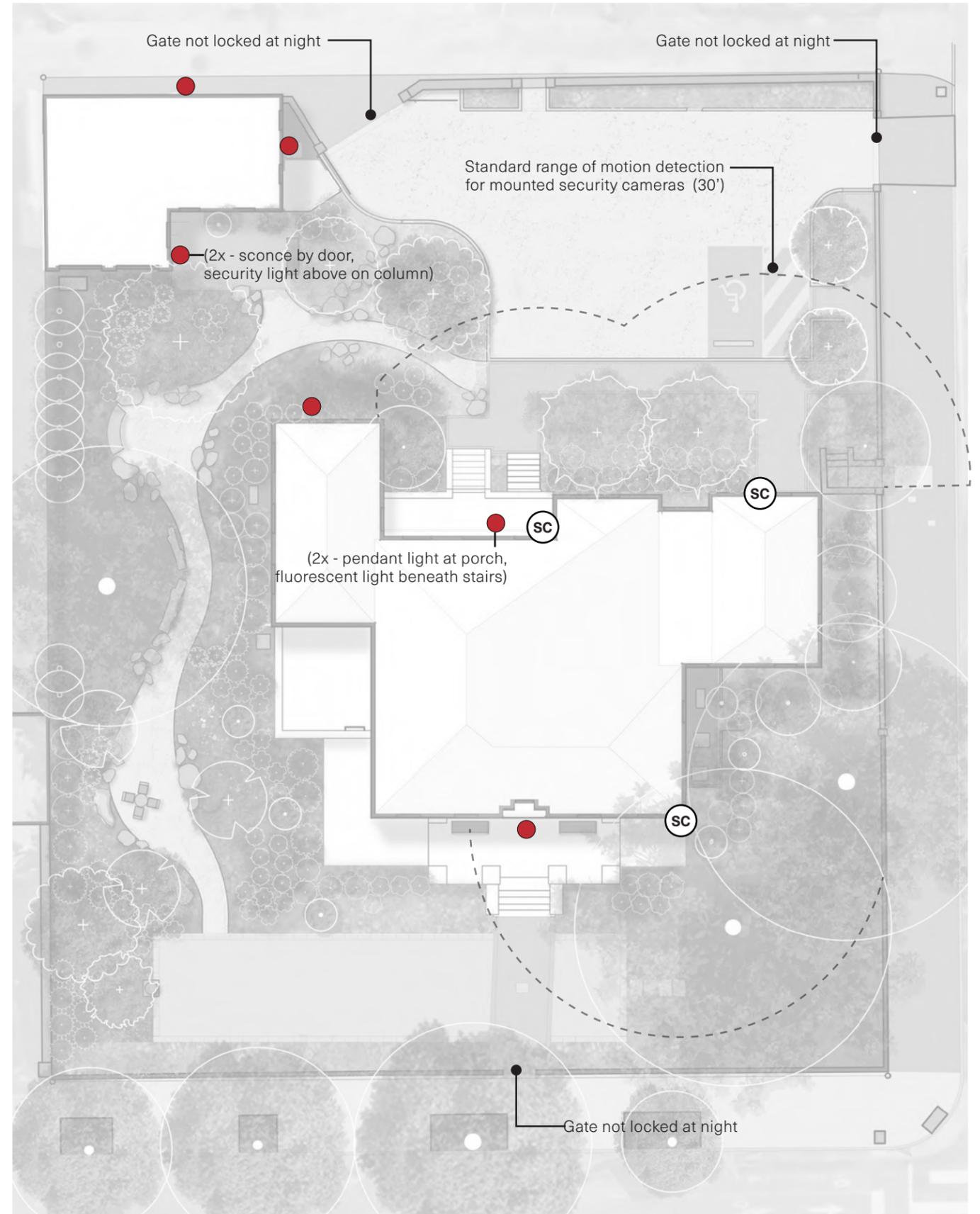


Lighting at front of Kent-Valentine House



Lighting at back of Kent-Valentine House

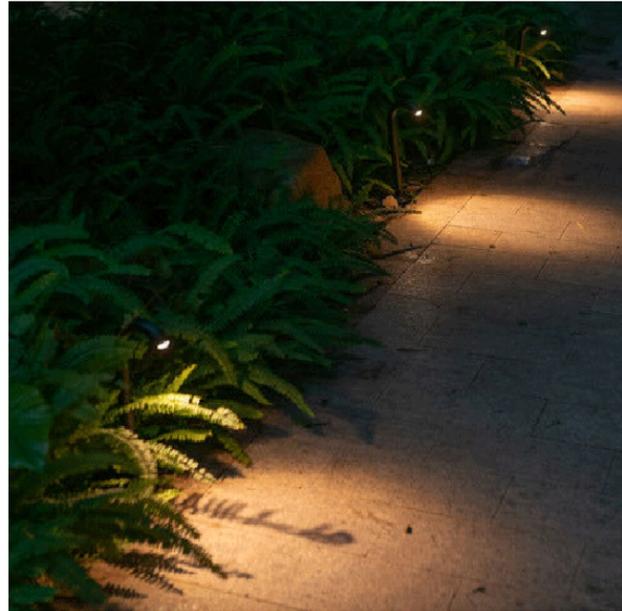
Lighting at Carriage House and Alley



LEGEND

- TEMPORARY / EVENTS UPLIGHTS
- ☀ DOWNLIGHTING
- LED PATH LIGHTING
- EXISTING LIGHTING
- ▶ FIXED SCENCE

- ⊙ SECURITY CAMERA
- ⊙ PROPOSED SECURITY CAMERA
- PROPOSED AUTOMATIC GATE



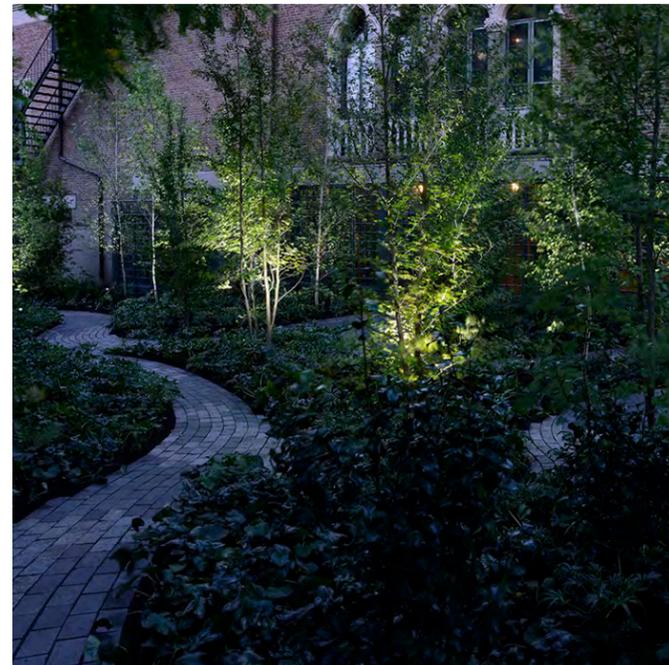
Warm LED Path Lighting



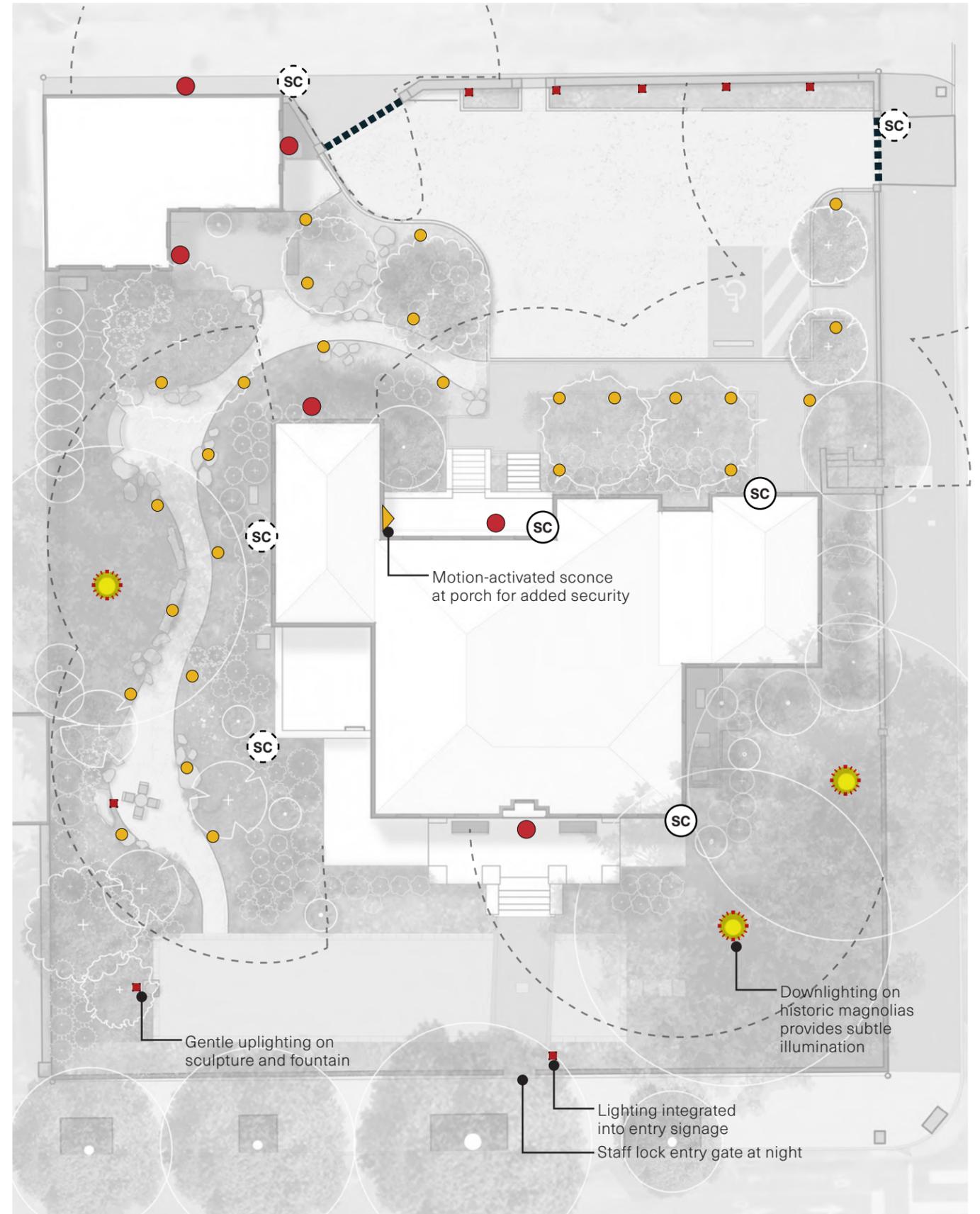
Subtle / Warm Uplighting



Downlighting (large trees)



Uplighting Precedent—Monks Garden (MVVA)



NOTE: ALL PERMANENT (NON-TEMPORARY) LIGHTING PRODUCTS ARE DARK-SKIES COMPLIANT



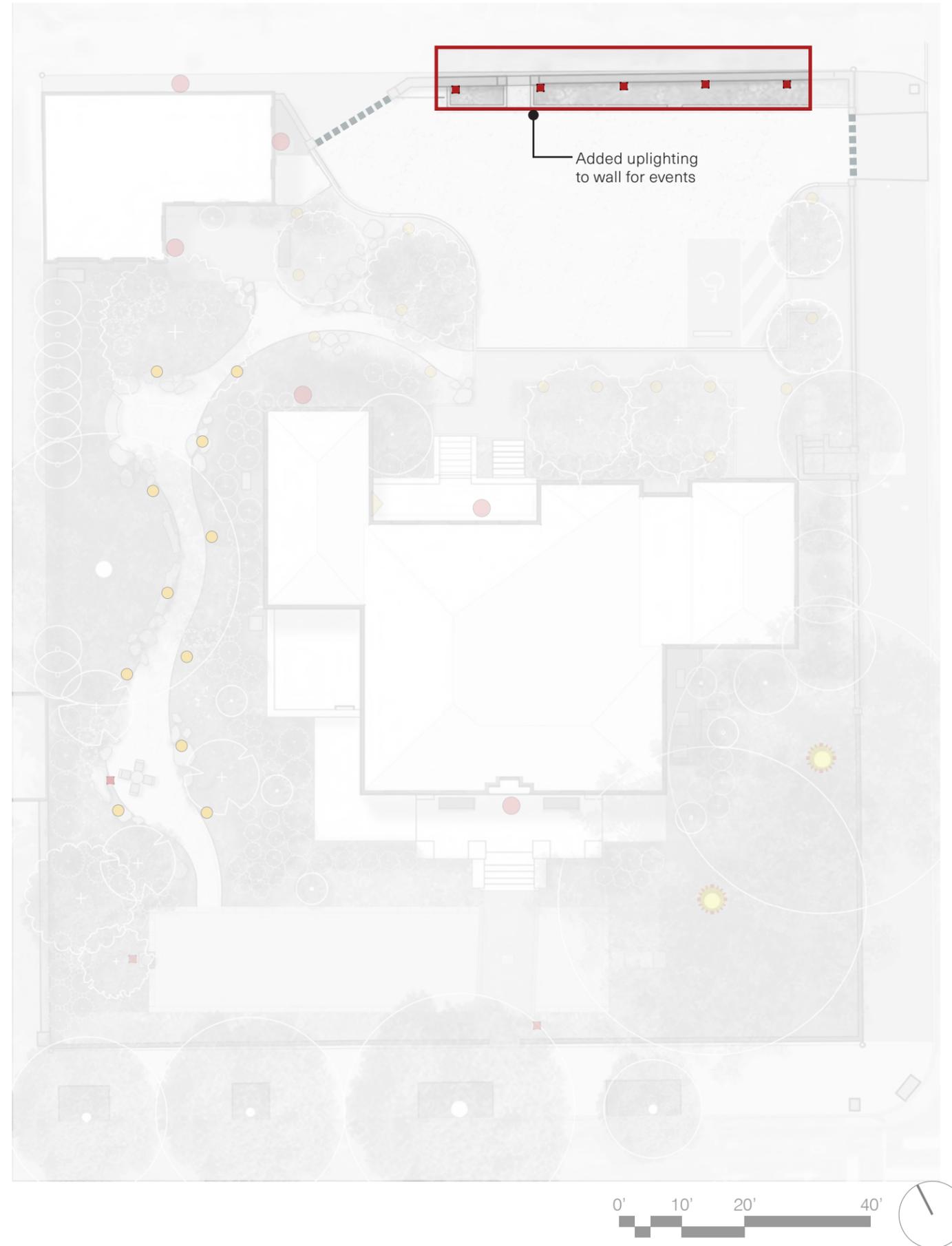
GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE
LIGHTING AND CAMERA LOCATIONS—Events Scenario

LEGEND

- FEATURE LIGHTING / UPLIGHTS



Existing condition - events at Kent Valentine House



GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE - HANGING SIGN INITIAL DRAWINGS

Hanging Entrance Signage Precedent



Decorative Finial

- Steel
- Primed and painted
- 12x12" potential bounding size (or 12x33")

3x2" Rectangle Galvanized Steel Arm

- Primed and painted
- Welded to 3" square steel post
- Welded fasteners to hang aluminum sign

0.5" Aluminum

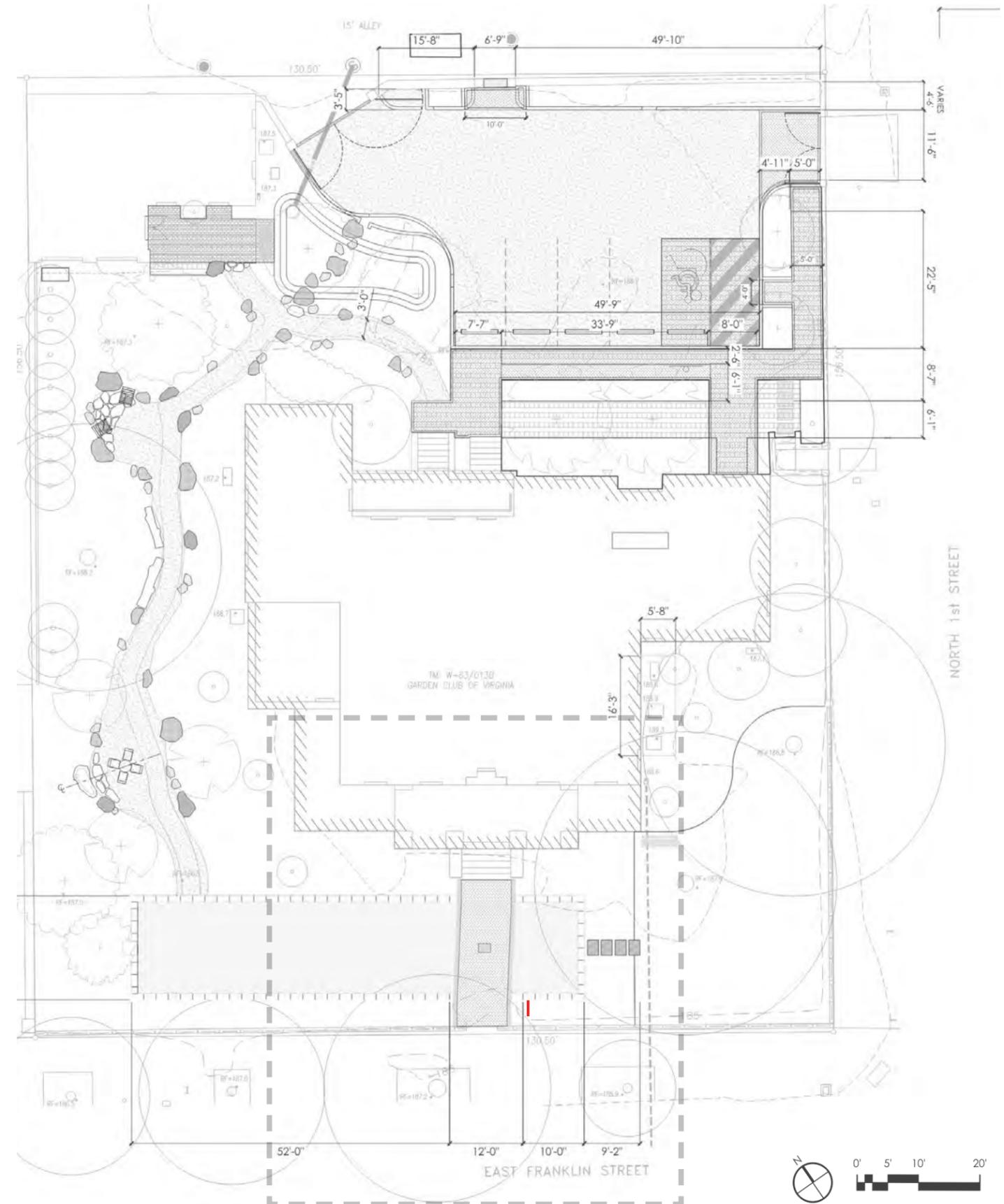
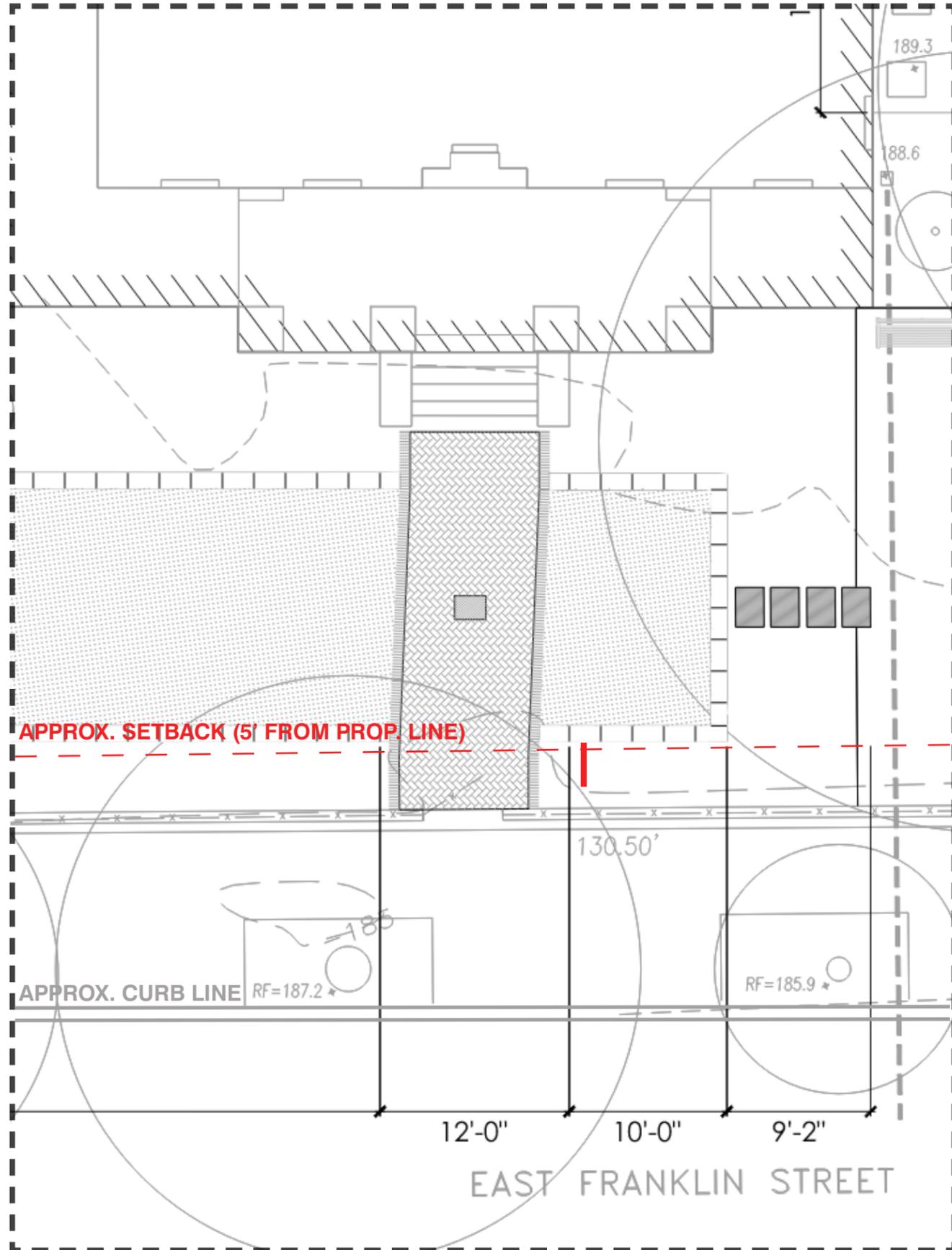
- 24x36" signage face
- Paint on all sides with direct print decoration
- Clear coating
- Hang from 3x2" rectangle steel arm

3" Square Galvanized Steel Post

- Primed and painted

GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE - SITING OPTION

*REQUIRES VARIANCE



GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE - SITING OPTION



GARDEN CLUB OF VIRGINIA
KENT-VALENTINE HOUSE - SITING OPTION



4. EXISTING CONDITIONS, DEMOLITION,
MATERIALS, AND LIGHTING PLANS;
PAVING AND LIGHTING DETAILS AND
CUTSHEETS

STAMP

DRAFT
NOT FOR
CONSTRUCTION

PROJECT NAME

Kent Valentine
House
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401 / TG72472
DRAWN BY: KH, LM
CHECKED BY: MA

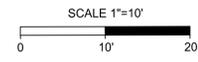
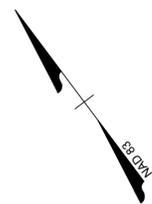
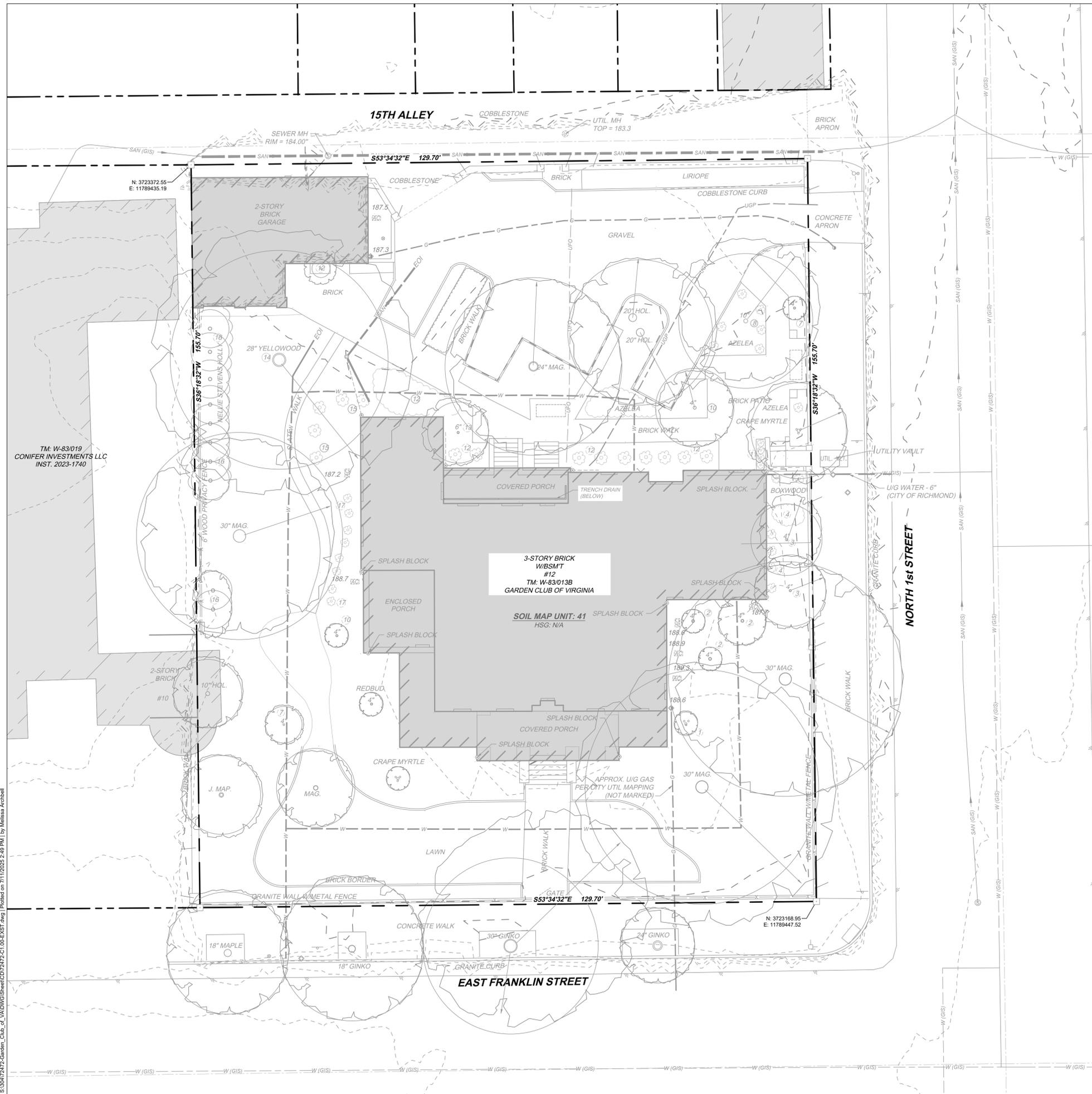
DRAWING TITLE

EXISTING
CONDITIONS PLAN

DATE: JULY 11, 2025
SCALE: 1" = 10'

DRAWING NUMBER

C1.00



EXISTING CONDITIONS LEGEND

SYMBOLS			
○	PROPERTY MARKER FOUND	□	MONUMENT FOUND
—	SIGN	⊕	FIRE HYDRANT
*	BOLLARD	⊙	WATER VALVE
⊛	BOLLARD w/ LIGHT	⊕	WATER METER
⊞	ELEC. BOX / TRANSFORMER	⊕	WATER MANHOLE
⊕	ELEC. METER	⊕	MONITORING WELL
⊕	LIGHT POLE	⊕	SEWER MANHOLE
⊕	UTILITY POLE	⊕	STORM MANHOLE
>	GUY WIRE	⊕	STORM GRATE
⊕	HANDHOLE	⊕	CLEANOUT
⊕	ELECTRIC MANHOLE	⊕	ROOF DRAIN
⊕	UNIDENTIFIED UTILITY MANHOLE	⊕	TREE
⊕	TELEPHONE BOX	⊕	CONTROL POINT
⊕	TRAFFIC CONTROL STRUCTURE	⊕	NATURAL GAS VALVE
⊕	WATER SAMPLING STATION	⊕	NATURAL GAS METER

LINETYPES

---	OHU	---	OVERHEAD UTILITY
---	UGP	---	PAINTED UNDERGROUND POWER LINES
---	W	---	PAINTED WATER LINE
---	SAN	---	PAINTED SANITARY SEWER LINE
---	G	---	NATURAL GAS LINE
---		---	EASEMENT
---		---	PROPERTY BOUNDARY
---		---	ROAD STRIPING
---		---	EDGE OF ASPHALT
---		---	FOREST EDGE
---		---	FENCE
---		---	EXISTING CONTOUR
---		---	SOIL LIMITS

HATCH

▨	EXISTING BUILDING
---	-------------------

- NOTES:**
- CAMELLIA SASANQUA
 - MAGNOLIA VIRGINIANA
 - CHIONANTHUS VIRGINICA
 - SARCOCOCCA CONFUSA
 - BUXOX SEMPERVIRENS
 - LAGERSTROMIA X
 - CORNUS KOUSA
 - OSTRYA
 - AZALEA
 - AMELANCHIER CANADENSIS
 - TAXUS X MEDIA
 - CAMELLIA JAPONICA
 - STYRAX JAPONICA
 - CLADOSTRIS KENTUCKEA
 - HYDRANGEA MACROPHYLLA
 - LLEX (NELLIE R. STEVENS)
 - TAXUS BACCATA REPANDNES

LOCATION OF U/G UTILITIES SHOWN ON THIS MAP IS BASED ON FIELD OBSERVATION AND RECORD INFORMATION. ADDITIONAL U/G UTILITIES MAY EXIST OTHER THAN THOSE SHOWN.

WETLANDS (IF ANY) AND RESOURCE PROTECTION AREA LIMITS ARE NOT SHOWN ON THIS SURVEY.

BUILDING SETBACKS OR OTHER ZONING CONDITIONS NOT DETERMINED FOR THIS MAP. COMPLIANCE WITH APPLICABLE ZONING ORDINANCES SHOULD BE CONFIRMED PRIOR TO CONSTRUCTION.

VERTICAL DATUM ASSUMED
CONTOUR INTERVAL 1 FOOT.

THIS EXISTING CONDITIONS SURVEY IS BASED ON A FIELD SURVEY PERFORMED BY BRUCE ROBERTSON LAND SURVEYING, PC ON 11/6/24.

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NO.	Date	Issues/Revisions
1	07.11.2025	100% DD Set

STAMP

**DRAFT
NOT FOR
CONSTRUCTION**

PROJECT NAME

**Kent Valentine
House**
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401 / TG72472
DRAWN BY: KH, LM
CHECKED BY: MA

DRAWING TITLE

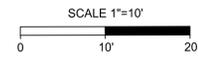
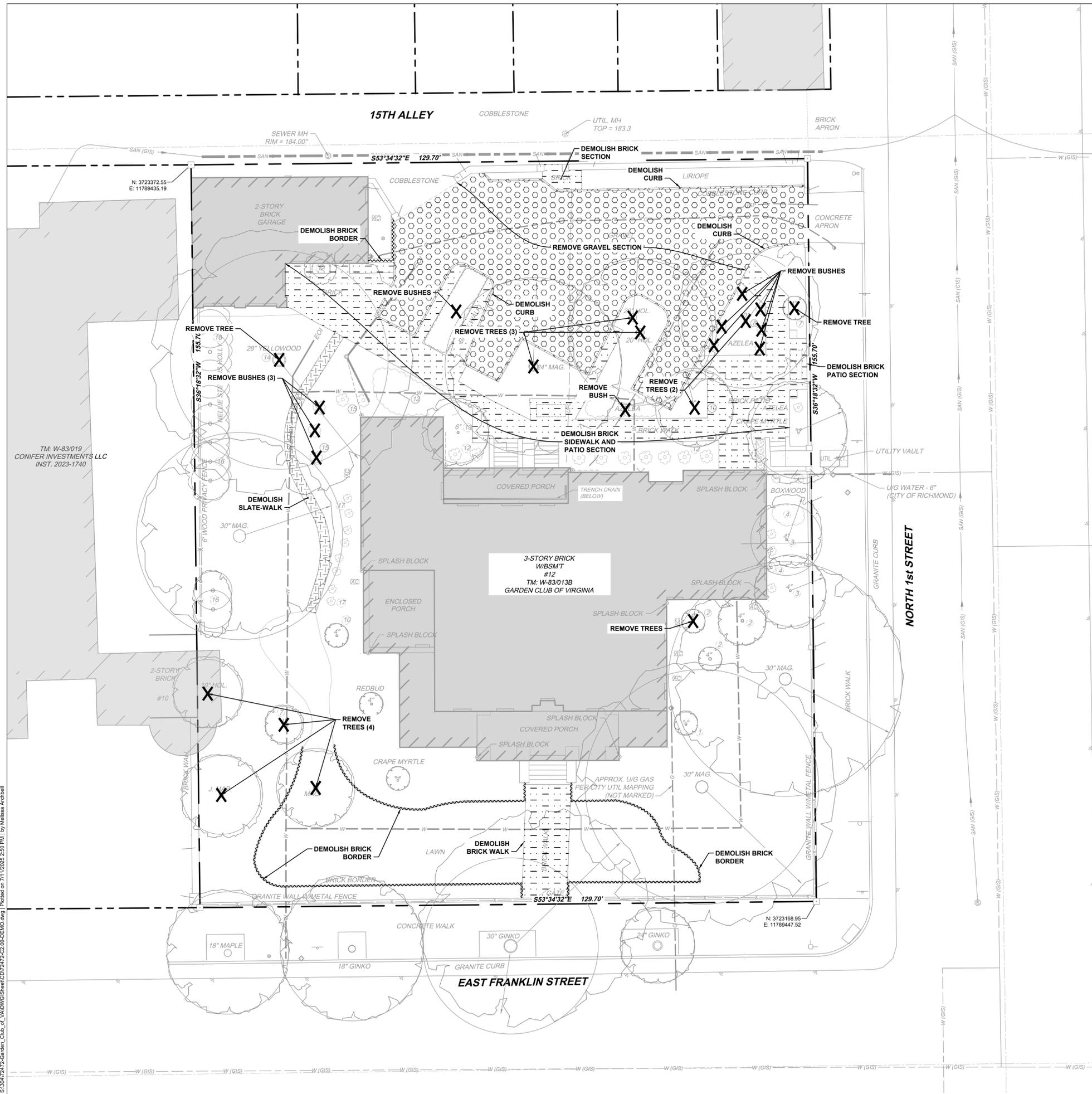
DEMOLITION PLAN

DATE: JULY 11, 2025

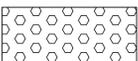
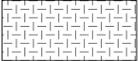
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DRAWING NUMBER

C2.00



DEMOLITION LEGEND

-  DEMOLISH SITE FEATURE
-  DEMOLISH CONCRETE SECTION
-  DEMOLISH BRICK SECTION
-  REMOVE GRAVEL SECTION
-  DEMOLISH SLATE SECTION

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TM: W-83/019
CONIFER INVESTMENTS LLC
INST. 2023-1740

3-STORY BRICK
W/BSMT
#12
TM: W-83/013B
GARDEN CLUB OF VIRGINIA

NO.	Date	Issues/Revisions
1	07.11.2025	100% DD Set
2	07.25.2025	City Pre-App

STAMP
DRAFT
NOT FOR
CONSTRUCTION

PROJECT NAME
Kent Valentine House
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401
DRAWN BY: JL, CN, MK
CHECKED BY: JJ, JL

DRAWING TITLE
MATERIALS PLAN

DATE: JULY 25, 2025
SCALE: AS NOTED

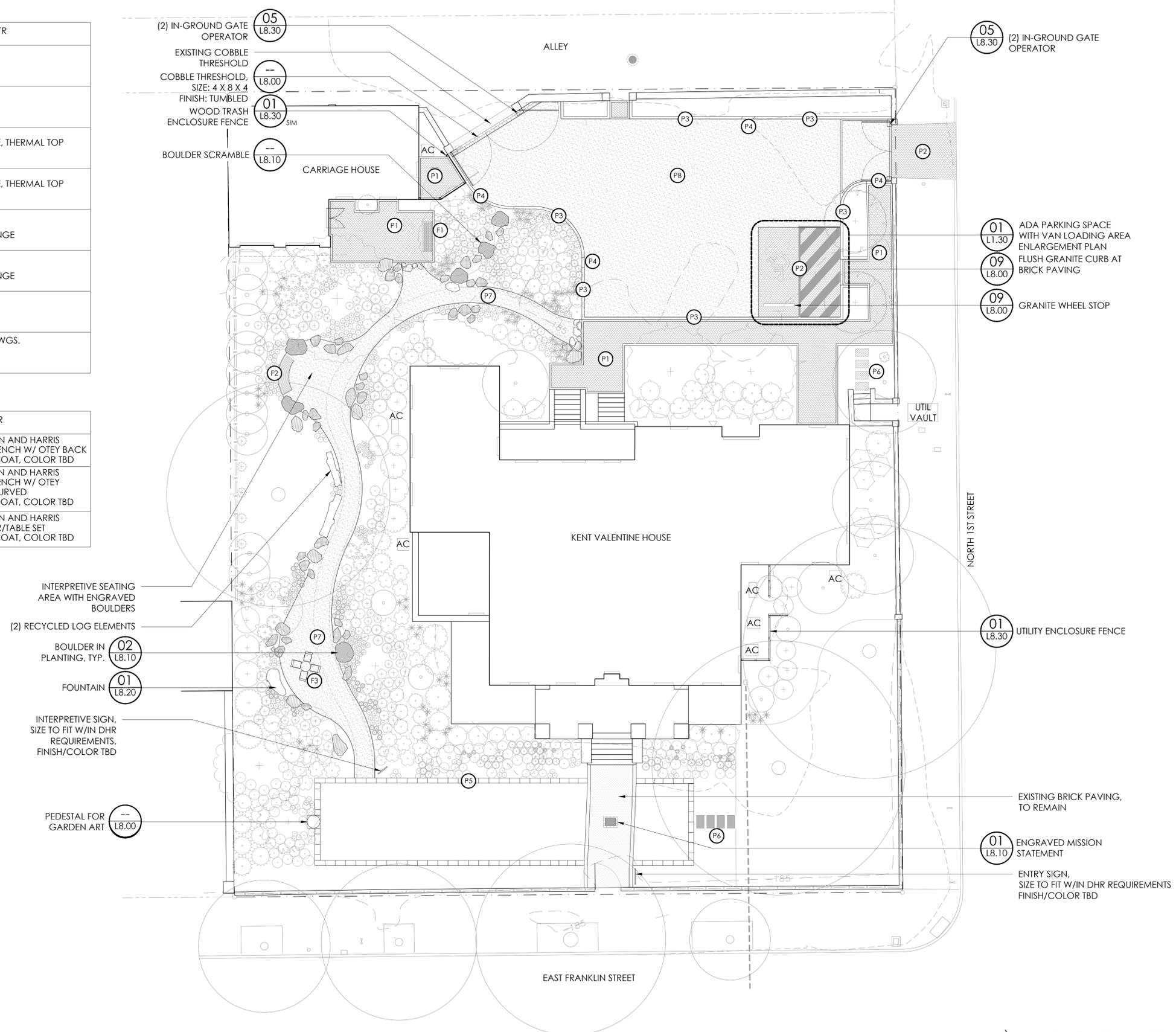
DRAWING NUMBER
L1.00

MATERIALS LEGEND - PAVING

SYMBOL	PAVING TYPE	DETAIL	FINISH/SIZE/ MFCTR
P1	BRICK PAVING - PEDESTRIAN ON SLAB	01 L8.00	MFCTR: TBD FINISH: TBD COLOR: TBD SIZE: 2" X 4" X 8"
P2	BRICK PAVING - VEHICULAR ON SLAB	02 L8.00	MFCTR: TBD FINISH: TBD COLOR: TBD SIZE: 2" X 4" X 8"
P3	RAISED GRANITE CURB	07 L8.00	MFCTR: TBD FINISH: SPLIT FACE, THERMAL TOP COLOR: TBD SIZE: 6" X 18" X 6"
P4	FLUSH GRANITE CURB	09 L8.00	MFCTR: TBD FINISH: SPLIT FACE, THERMAL TOP COLOR: TBD SIZE: 6" X 18" X 6"
P5	LAWN PANEL BLUESTONE BORDER	05 L8.00	MFCTR: TBD FINISH: THERMAL COLOR: FULL RANGE SIZE: 2" X 12" X 24"
P6	BLUESTONE STEPPING STONES	04 L8.00	MFCTR: TBD FINISH: THERMAL COLOR: FULL RANGE SIZE: 2" X 18" X 30"
P7	STABILIZED DECOMPOSED GRANITE PAVING - PED.	03 L8.00	MFCTR: TBD FINISH: TBD COLOR: TBD
P8	STABILIZED DECOMPOSED GRANITE PAVING - VEH.	---	REFER TO CIVIL DWGS.

MATERIALS LEGEND - FURNISHINGS

SYMBOL	QTY	FURNISHING TYPE	DETAIL	FINISH/SIZE/ MFCTR
F1	1	BENCH		MFCTR: MCKINNON AND HARRIS STYLE: VIRGINIA BENCH W/ OTEY BACK FINISH: POWDER COAT, COLOR TBD
F2	1	CURVED BENCH (CUSTOM)		MFCTR: MCKINNON AND HARRIS STYLE: VIRGINIA BENCH W/ OTEY BACK; CUSTOM CURVED FINISH: POWDER COAT, COLOR TBD
F3	1	TABLE AND CHAIRS		MFCTR: MCKINNON AND HARRIS STYLE: OTEY CHAIR/TABLE SET FINISH: POWDER COAT, COLOR TBD



- INTERPRETIVE SEATING AREA WITH ENGRAVED BOULDERS
- (2) RECYCLED LOG ELEMENTS
- BOULDER IN PLANTING, TYP. 02
L8.10
- FOUNTAIN 01
L8.20
- INTERPRETIVE SIGN, SIZE TO FIT W/IN DHR REQUIREMENTS, FINISH/COLOR TBD
- PEDESTAL FOR GARDEN ART 01
L8.00

- 05
L8.30 (2) IN-GROUND GATE OPERATOR
- 01
L1.30 ADA PARKING SPACE WITH VAN LOADING AREA ENLARGEMENT PLAN
- 09
L8.00 FLUSH GRANITE CURB AT BRICK PAVING
- 09
L8.00 GRANITE WHEEL STOP

- 01
L8.30 UTILITY ENCLOSURE FENCE
- EXISTING BRICK PAVING, TO REMAIN
- 01
L8.10 ENGRAVED MISSION STATEMENT
- ENTRY SIGN, SIZE TO FIT W/IN DHR REQUIREMENTS FINISH/COLOR TBD

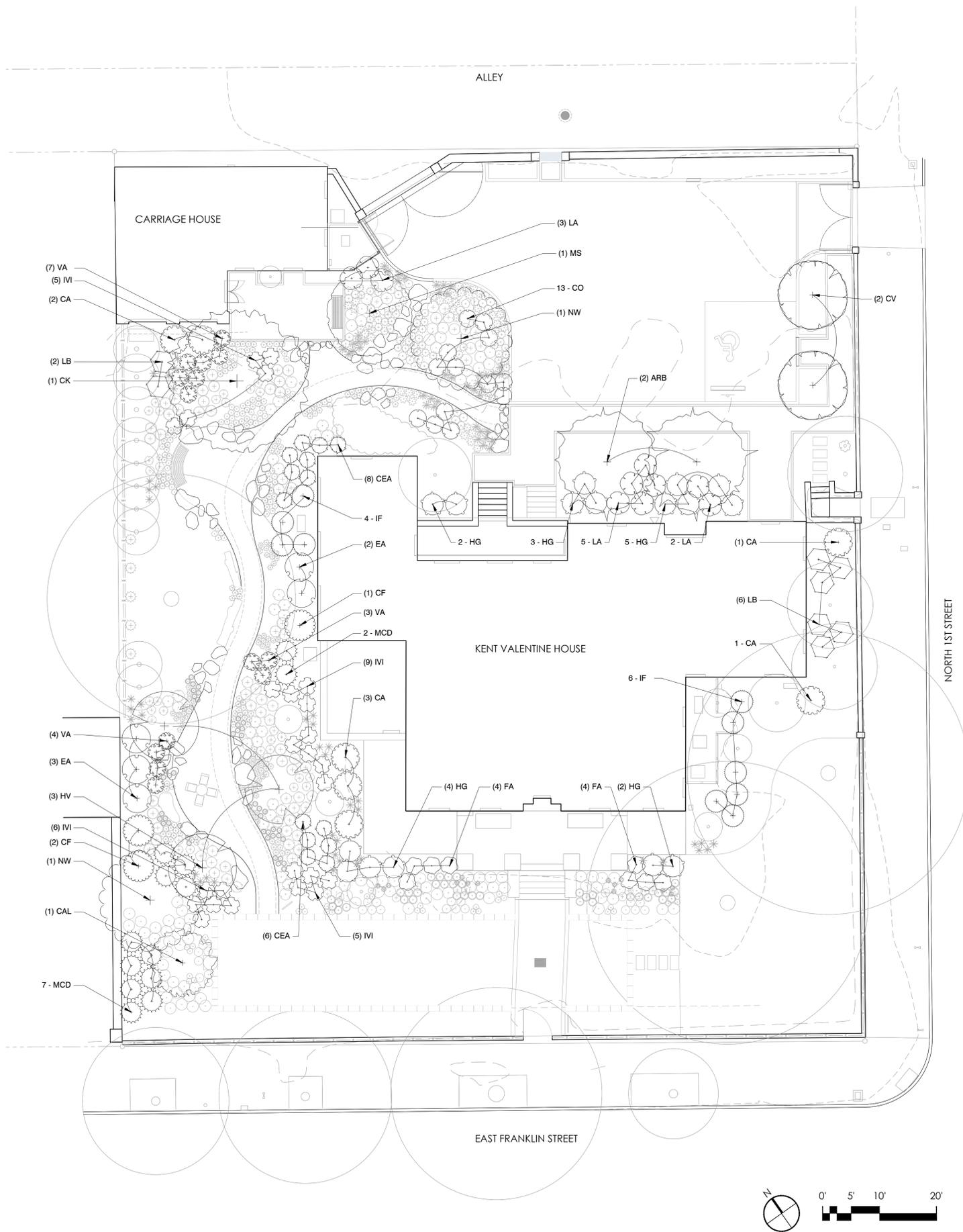


TREE AND SHRUB LEGEND

	BOTANICAL NAME	COMMON NAME	SIZE		QTY
TREES					
ARB	Acer rubrum 'Built to Last'	Built to Last® Red Maple	3" Cal.		2
CV	Chionanthus virginicus	White Fringetree	2" Cal.		2
CK	Cladrastis kentukea	American Yellowwood	3" Cal.		1
CAL	Cornus alternifolia	Pagoda Dogwood	2" Cal.		1
HV	Hamamelis virginiana	Common Witch Hazel	6" Ht.		3
MS	Magnolia virginiana	Sweetbay Magnolia	10" Ht.		1
NW	Nyssa sylvatica 'Wildfire'	Wildfire Tupelo	3" Cal.		2
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY
SHRUBS					
+	Callicarpa americana	American Beautyberry	3 gal.	60" o.c.	7
+	Calycanthus floridus	Sweetshrub	3 gal.	72" o.c.	3
+	Ceanothus americanus	New Jersey Tea	3 gal.	36" o.c.	14
+	Cephalanthus occidentalis 'SMCOSS'	Sugar Shack® Buttonbush	3 gal.	36" o.c.	13
+	Euonymus americanus	Strawberry Bush	3 gal.	60" o.c.	5
+	Fothergilla gardenii 'Mt. Airy'	Mt. Airy Dwarf Witchalder	3 gal.	36" o.c.	8
+	Hydrangea arborescens 'Haas' Halo'	Hass' Halo Smooth Hydrangea	3 gal.	48" o.c.	16
+	Illicium floridanum	Florida Anise	3 gal.	48" o.c.	10
+	Itea virginica 'Little Henry'	Little Henry Sweetspire	3 gal.	36" o.c.	25
+	Leucothoe axillaris	Coastal Leucothoe	3 gal.	48" o.c.	10
+	Lindera benzoin	Spicebush	1 gal.	48" o.c.	8
+	Morella cerifera 'Don's Dwarf'	Don's Dwarf Wax Myrtle	3 gal.	48" o.c.	13
+	Viburnum acerifolium	Mapleleaf Viburnum	3 gal.	36" o.c.	14

NOTES:

1. THE PLANT QUANTITIES INCLUDED ON THIS SHEET ARE SPECIFIC TO THIS LOCATION.
2. QUANTITIES ARE INCLUDED IN PLANT SCHEDULE ON L5.30.



NO.	Date	Issues/Revisions
1	07.11.2025	100% DD Set
2	07.25.2025	City Pre-App

STAMP

**DRAFT
NOT FOR
CONSTRUCTION**

PROJECT NAME

**Kent Valentine
House**
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401
DRAWN BY: JL, CN, MK
CHECKED BY: JJ, JL

DRAWING TITLE

**TREE AND SHRUB
PLANTING PLAN**

DATE: JULY 25, 2025
SCALE: AS NOTED

DRAWING NUMBER

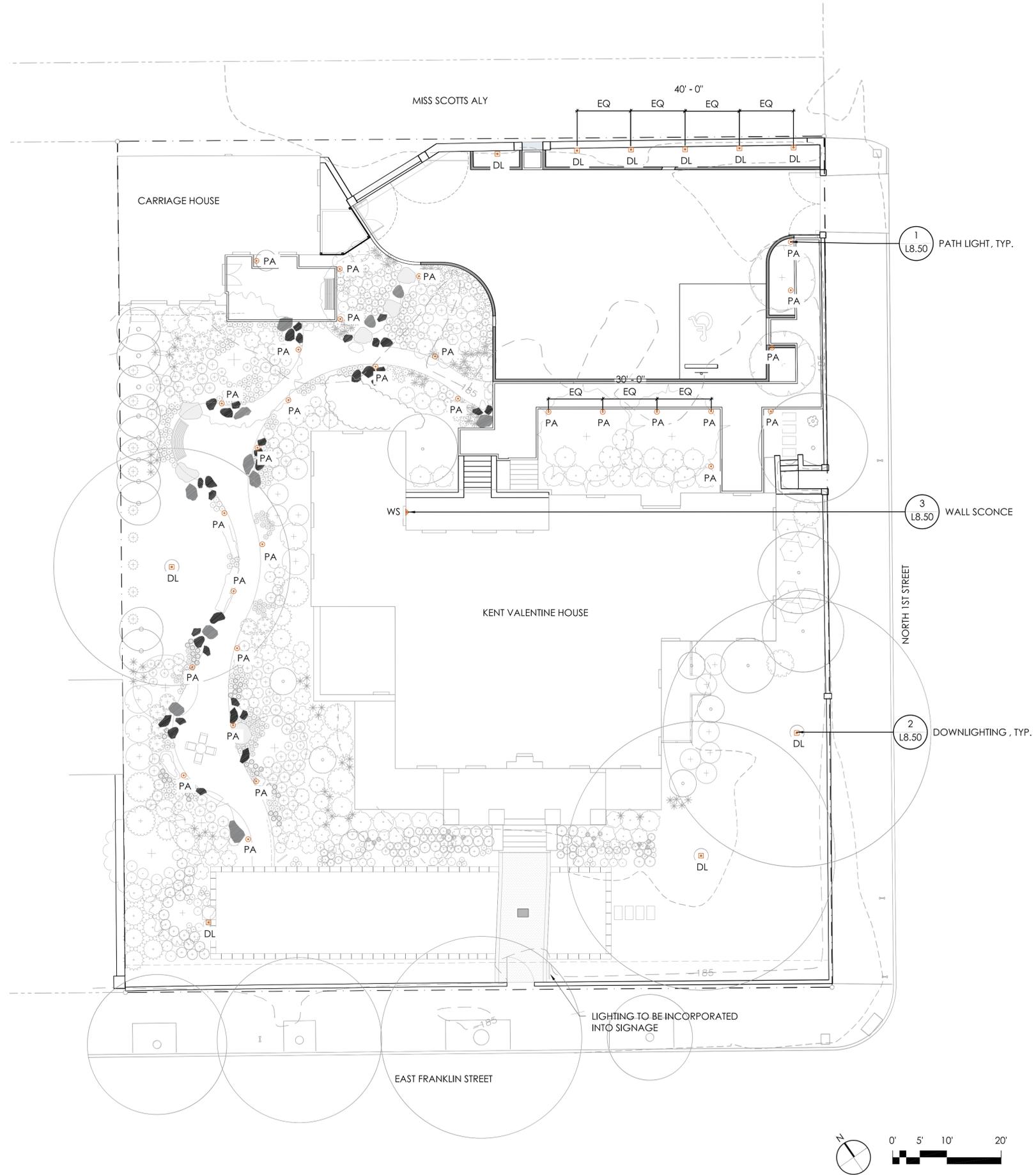
L5.00

LIGHTING LEGEND

CODE	SYMBOL	QTY	LIGHTING TYPE	FINISH/SIZE/ MFCTR
PA	○	29	PATH LIGHTS	MFCTR: AURORALIGHT STYLE: MARTILLO
DL	◻	9	DIRECTIONAL LIGHTING	MFCTR: AURORALIGHT STYLE: TELLURIDE
WS	▲	1	WALL SCONCE	MFCTR: FERGUSON HOME STYLE: JAMES ALLAN AVERY 14" TALL OUTDOOR WALL SCONCE W/ CLEAR GLASS SHADE

NOTES:

1. ALL DIRECTIONAL LIGHTING ASSOCIATED WITH TREES SHOULD BE POINTED DOWN.
2. DIRECTIONAL LIGHTING ASSOCIATED WITH WALLS WILL ONLY BE USED FOR EVENTS.



NO. Date Issues/Revisions

1	07.11.2025	100% DD Set
2	07.25.2025	City Pre-App

STAMP

DRAFT
NOT FOR
CONSTRUCTION

PROJECT NAME

Kent Valentine
House
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401
DRAWN BY: JL, CN, MK
CHECKED BY: JJ, JL

DRAWING TITLE

LIGHTING PLAN

DATE: JULY 25, 2025
SCALE: AS NOTED

DRAWING NUMBER

L6.00



NO.	Date	Issues/Revisions
1	07.11.2025	100% DD Set
2	07.25.2025	PAM Submission

STAMP
DRAFT
NOT FOR
CONSTRUCTION

PROJECT NAME
Kent Valentine
House
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401
DRAWN BY: JL, CN, MK
CHECKED BY: JJ, JL

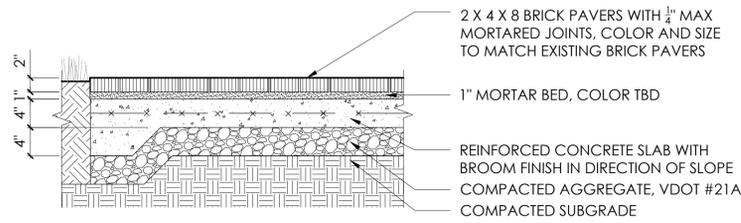
DRAWING TITLE
CONSTRUCTION
DETAILS - PAVING

DATE: JULY 25, 2025
SCALE: AS NOTED

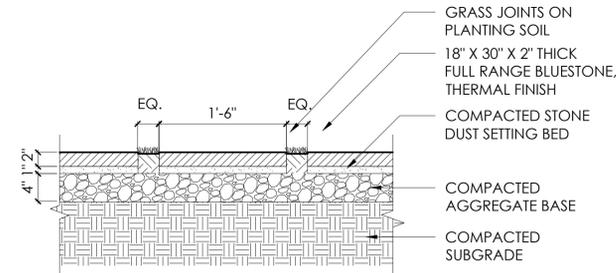
DRAWING NUMBER

L8.00

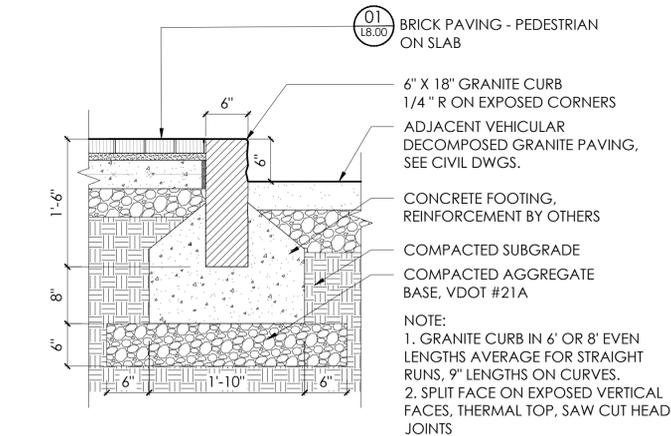
- NOTE:
1. CROWN PAVERS ACCORDING TO GRADING PLAN
2. MAXIMUM VERTICAL CLEARANCE BETWEEN TOP OF ADJACENT PAVERS SHALL BE $\frac{3}{8}$ ". MISSHAPEN OR DEFORMED PAVERS ARE NOT ACCEPTABLE.
3. CONTRACTOR TO MATCH EXISTING BRICK PAVERS ONSITE AND PROVIDE SAMPLES TO LANDSCAPE ARCHITECT FOR REVIEW



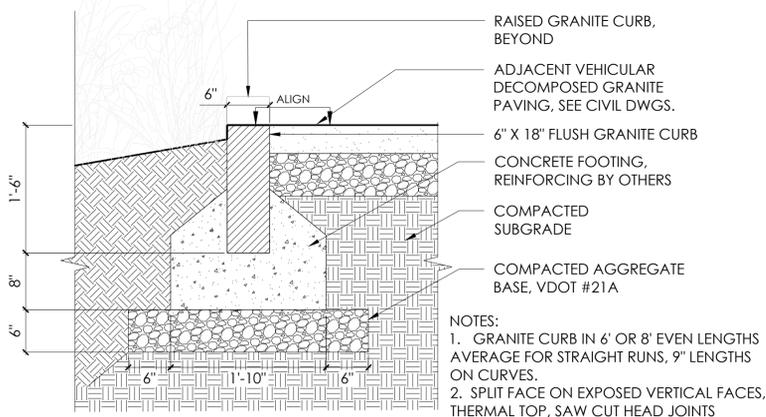
01 BRICK PAVING - PEDESTRIAN ON SLAB
L8.00 SCALE: 1" = 1'-0"
NOTE: SEE MATERIALS PLAN FOR STONE TYPE



04 BLUESTONE STEPPING STONES
L8.00 SCALE: 1" = 1'-0"

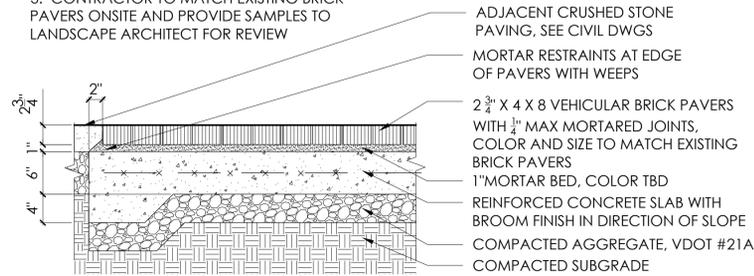


07 RAISED GRANITE CURB AT VEHICULAR DG PAVING
L8.00 SCALE: 1" = 1'-0"

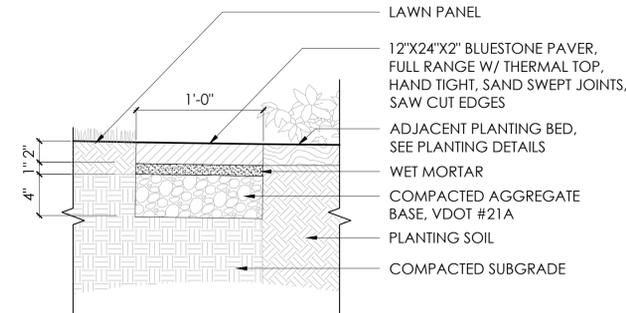


10 FLUSH GRANITE CURB AT PLANTING BED
L8.00 SCALE: 1" = 1'-0"

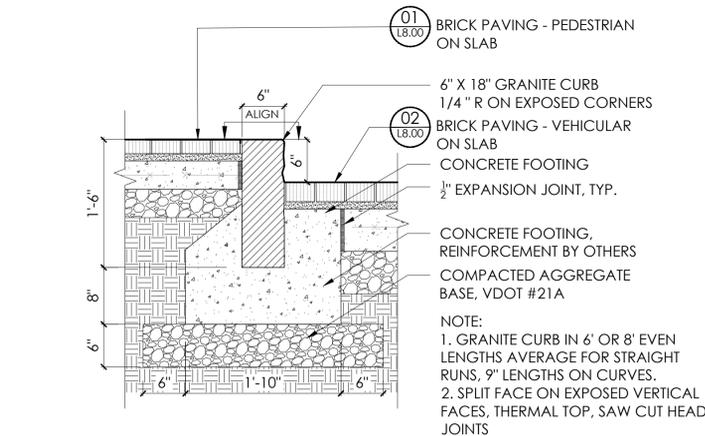
- NOTE:
1. CROWN PAVERS ACCORDING TO GRADING PLAN
2. MAXIMUM VERTICAL CLEARANCE BETWEEN TOP OF ADJACENT PAVERS SHALL BE $\frac{3}{8}$ ". MISSHAPEN OR DEFORMED PAVERS ARE NOT ACCEPTABLE
3. CONTRACTOR TO MATCH EXISTING BRICK PAVERS ONSITE AND PROVIDE SAMPLES TO LANDSCAPE ARCHITECT FOR REVIEW



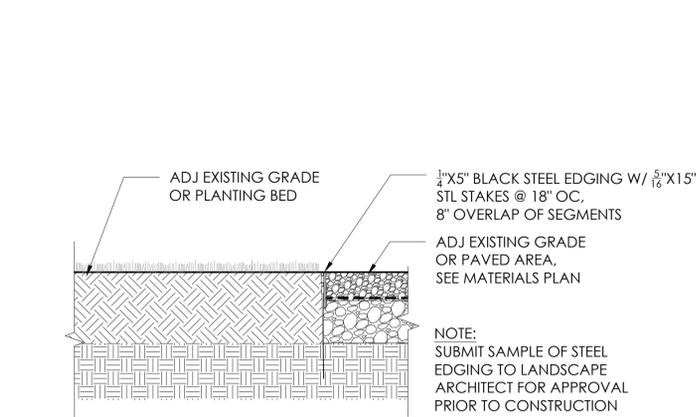
02 BRICK PAVING - VEHICULAR ON SLAB
L8.00 SCALE: 1" = 1'-0"



05 LAWN PANEL BLUESTONE BORDER AT PLANTING BED
L8.00 SCALE: 1 1/2" = 1'-0"

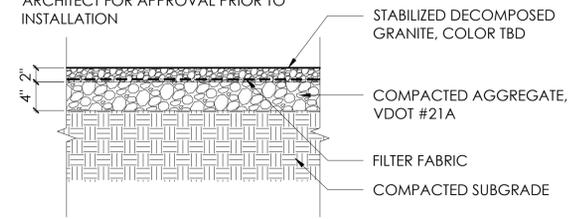


08 RAISED GRANITE CURB AT BRICK VEHICULAR PAVING
L8.00 SCALE: 1" = 1'-0"

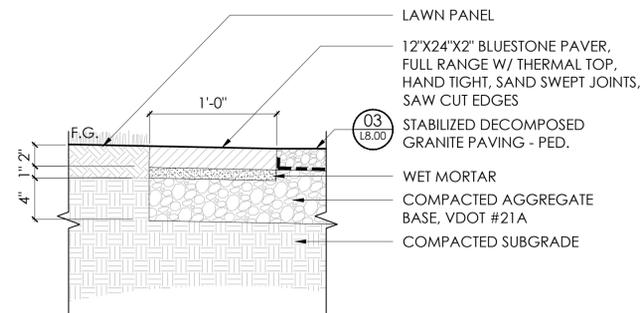


11 STEEL EDGING AT CRUSHED STONE PATH
L8.00 SCALE: 1" = 1'-0"

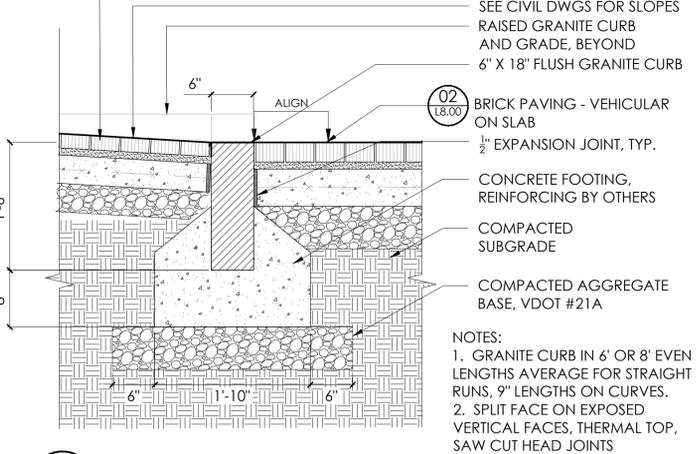
- NOTES:
1. DECOMPOSED GRANITE TO BE STABILIZED WITH ORGANIC-LOCK OR APPROVED EQUAL
2. CONTRACTOR TO SUBMIT SAMPLE OF DECOMPOSED GRANITE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION



03 STABILIZED DECOMPOSED GRANITE PAVING - PED.
L8.00 SCALE: 1" = 1'-0"



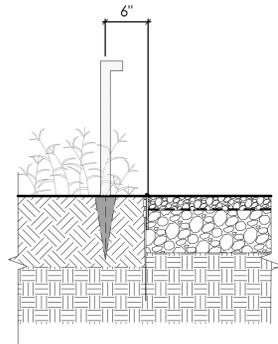
06 LAWN PANEL BLUESTONE BORDER AT DG PATH
L8.00 SCALE: 1 1/2" = 1'-0"



09 FLUSH GRANITE CURB AT BRICK PAVING
L8.00 SCALE: 1" = 1'-0"

NOTE:
FINISH FOR ALL AURORALIGHT FIXTURES TO BE BLPX (EXTRA DARK BRONZE LIVING PATINA). CONTRACTOR TO SELECT MOUNT IN COORDINATION WITH LANDSCAPE ARCHITECT.

LANDSCAPE ARCHITECT TO APPROVE PLACEMENT OF PATH LIGHTING PRIOR TO FINAL INSTALLATION.



AURORALIGHT

MARTILLO PTA321103

The Martillo Path Light is a stylistic LED luminaire featuring a sleek, precisely sculpted brass body and stem. Incomparable engineering, materials, and innovation put the Martillo in a class of its own.

- Field Serviceable LED module
- Solid brass construction
- Modern & versatile square stem to match any project
- Ideal for driveways, wide pathways & walkways

CONFIGURATOR:

PTA321103 (1 = Most common configuration)	LED	FINISH
	(2703) 2700K 3W (3003) 3000K 3W	(MAT) Natural Brass (BLP) Bronze Living Patina (BLPX) Extra Dark BLP (NI) Nickel PVD

FIXTURE DIMENSIONS	W1-3/8" x H18" x L3-1/8"
LIGHT SOURCE	Integrated LED
COLOR TEMPERATURES	2700K, 3000K
WATTAGES	3W
CRI (RA)	80 CRI
VOLTAGE	12V
DELIVERED LUMENS	112lm (3000K)
DIMMABLE	Yes, Dim to <10% via Transformer
DRIVER	Yes, 12V Integral Constant Current
TRANSFORMER	12V AG/DC (Supplied by others)
MOUNT	Yes, Included 1/2" NPS Adapter
GROUND STAKE	Yes, Included MGS00109
FINISH	Included Natural Brass
MATERIAL	Brass
WIRE LENGTH	24"
LOCATION	Exterior Wet
CERTIFICATIONS	UL IP68, IP67, Dark Sky

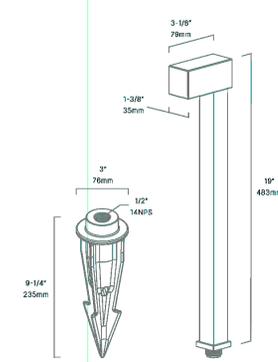
*For complete warranty terms, please visit: www.auroralight.com/warranty/

PROJECT:

SKU #:

TYPE:

AVAILABLE FINISHES:



AURORALIGHT

ADD-ONS

MOUNTS

<input type="checkbox"/> MGS001510	Ground Stake w/ 2" Brass Cap
<input type="checkbox"/> MGS001612	Ground Stake w/ 3" Brass Cap
<input type="checkbox"/> MGS001712	Ground Stake w/ 3-1/4" Brass Cap
<input type="checkbox"/> MGS005109	9" Deluxe Spike
<input type="checkbox"/> MGS005212	12" Trident Spike
<input type="checkbox"/> MJB002303	3" Junction Box w/ PVC Stake
<input type="checkbox"/> MPM003104	Concrete Pedestal Mount
<input type="checkbox"/> MSM189102	2" Surface Mount
<input type="checkbox"/> MSM189203	3" Surface Mount

*For complete details, please visit auroralight.com/mounts/

PROJECT:

SKU #:

TYPE:



AURORALIGHT

TELLURIDE SDL180184

The Telluride is specifically designed to install quickly. This luminaire is ideal for downlighting, directional lighting, and wallwashing, providing dramatic results.

- Storm Drain™ system to expel dirt, dust & water
- Thermally integrated w/ Copper Core Technology®
- 3 Interchangeable PMMA acrylic optics from 20° to 60°
- Ideal for trees, large greenery, architecture or facade

CONFIGURATOR:

SDL180184 (1 = Most common configuration)	LED	FINISH
	(2703) 2700K 6W (2732) 2700K 12W (3003) 3000K 6W (3008) 3000K 12W	(MAT) Natural Brass (BLP) Bronze Living Patina (BLPX) Extra Dark BLP (NI) Nickel PVD

FIXTURE DIMENSIONS	1.5-1/4" x 22-1/2" x W1-5/8"
LIGHT SOURCE	Included LM18 LED Module
COLOR TEMPERATURES	2700K, 3000K
WATTAGES	6W, 12W, 12W
CRI (RA)	80 CRI
VOLTAGE	12V
DELIVERED LUMENS	678lm (3000K)
DIMMABLE	Yes, Dim to <10% via Transformer
DRIVER	Yes, 12V Integrate Constant Current
TRANSFORMER	12V AG/DC (Supplied by others)
MOUNT	Included 1/2" Thread & Surface Mount
ACCESSORIES	Yes, included 80° Glass Shade
OPTICS	Yes, included 20°, 42° & 60°
FINISH	Included Natural Brass
MATERIAL	Brass
WIRE LENGTH	24"
LOCATION	Exterior Wet
CERTIFICATIONS	UL IP68, IP67

*For complete warranty terms, please visit: www.auroralight.com/warranty/

P. 760.931.2910
O. 2742 Loker Ave. W. Carlsbad CA 92010
W. www.auroralight.com

ADD-ONS

<input type="checkbox"/> H003	Hex Baffle
<input type="checkbox"/> SDH003	Stepped Baffle w/ Hex
<input type="checkbox"/> LS003	Linear Spindel Lens
<input type="checkbox"/> F003	Frosted Lens
<input type="checkbox"/> G003	90° Glass Shield
<input type="checkbox"/> WAC01	Internal Wiring Adapter

MOUNTS

<input type="checkbox"/> MGS001510	Ground Stake w/ 2" Brass Cap
<input type="checkbox"/> MJB012103	Surface Mount J-Box
<input type="checkbox"/> MSM189102	2" Surface Mount
<input type="checkbox"/> MSM189203	3" Surface Mount
<input type="checkbox"/> MCP183203	3-1/2" Cover Plate
<input type="checkbox"/> MCP183304	4" Cover Plate
<input type="checkbox"/> MCP183404	4-1/2" Cover Plate
<input type="checkbox"/> MAMC182105	4-1/2" Mount Canopy
<input type="checkbox"/> MAMC182205	4-1/2" Mount Canopy
<input type="checkbox"/> MTR425402	38" Heavy Duty Tree Strap
<input type="checkbox"/> MTR425102	Slide-In Tree Mount
<input type="checkbox"/> MTR425202	Slide-On Tree Mount

*For complete details, please visit auroralight.com/mounts/

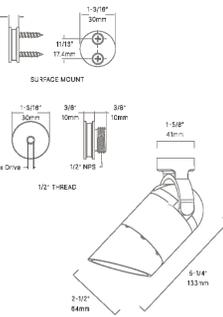
PROJECT:

SKU #:

TYPE:



AVAILABLE FINISHES:



MADE IN USA
www.auroralight.com



RISERS

<input type="checkbox"/> RSR188108	4" Fixed Riser
<input type="checkbox"/> RSR188112	12" Fixed Riser
<input type="checkbox"/> RSR188210	8" x 10" Extendable Riser
<input type="checkbox"/> RSR188218	8" x 18" Extendable Riser
<input type="checkbox"/> RSR188222	11" x 21" Extendable Riser
<input type="checkbox"/> RSR188412	12" Subterranean Riser
<input type="checkbox"/> RSR188418	18" Subterranean Riser



JAMES ALLAN



James Allan Avery 14" Tall Outdoor Wall Sconce with Clear Glass Shade

Model: JAVWS1815TBL | Item: b44283645
from the [Avery Collection](#)
★★★★★ 5 Reviews

Details

Features

- Constructed from steel
- Comes with a clear glass shade
- Dimmable with compatible dimming bulbs
- Recommended for use with Vintage Edison bulb
- Intended for outdoor use
- Built-in motion sensor automatically switches on the light when you're near by
- Built-in daylight sensor to control the lighting automatically
- ETL rated for wet locations
- Covered under a 5 year limited manufacturer warranty



Dimensions

- Height: 13-3/4"
- Width: 5"
- Extension: 6"
- Product Weight: 4.4 lbs
- Shade Width: 10"
- Shade Height: 4-9/16"
- Backplate Height: 4-5/8"
- Backplate Width: 4-5/8"
- Backplate Depth: 1"

Electrical Specifications

- Number of Bulbs: 1
- Max. Watts Per Bulb: 60 watts
- Bulb Base: Medium (E26)
- Bulb Shape: T10
- Bulb Included: No

Dimensions and Measurements

Backplate Depth	1 in.
Backplate Height	4.65 in.
Backplate Width	4.65 in.
Extension	6 in.
Height	13.75 in.
Nominal Height	14 in.
Product Weight	4.4 lbs.
Shade Height	10 in.
Shade Width	4.57 in.
Width	5 in.

Included Components

Bulb Included	No
Motion Sensor	Yes
Shade	Yes

Characteristics and Features

Bulb Base	Medium (E26)
Bulb Shape	T10
Bulb Type	Incandescent
Bulb Visible	Yes
Dimmable	Yes
Full Backplate	No
Glass Features	Clear Glass
LED	No
Light Direction	Ambient Lighting
Material	Steel

Material

Material	Steel
Number of Bulbs	1
Number of Light Source(s)	1
Photocell	Yes
Reversible Mounting	No
Sconce Type	Lantern
Shade Color	Clear
Shade Material	Glass
Shade Shape	Lantern
Theme	Transitional
Vintage Edison Bulb	Yes

Electrical and Operational Information

Power Source	Hardwired
Voltage	120
Voltage Type	Line Voltage (110-120V)
Wattage	60
Watts Per Bulb	60

Warranty and Product Information

ADA	No
Certifications	ETL
Collection	Avery
Country Of Origin	China
Dark Sky	No
Location Rating	Wet Location
Manufacturer Warranty	5 Year Limited
Outdoor Approved	Yes
Title 20 Compliant	Yes

310 East Market Street
Charlottesville
VA 22902

T 434.984.1358
F 434.984.4158
www.nbwla.com

NO. Date Issues/Revisions

1	07.11.2025	100% DD Set
2	07.25.2025	City Pre-App

STAMP

DRAFT
NOT FOR
CONSTRUCTION

PROJECT NAME

Kent Valentine
House
Richmond,
Virginia

100% DESIGN DEVELOPMENT

PROJECT NO.: GCV2401
DRAWN BY: JL, CN, MK
CHECKED BY: JJ, JL

DRAWING TITLE

CONSTRUCTION
DETAILS -
LIGHTING

DATE: JULY 25, 2025
SCALE: AS NOTED

DRAWING NUMBER

L8.50

1 PATH LIGHT
L8.50 SCALE: 1" = 1'-0"

2 DIRECTIONAL LIGHTING
L8.50 SCALE: N/A

3 WALL SCONCE
L8.50 SCALE: N/A

4. EXISTING CONDITIONS, DEMOLITION,
MATERIALS, AND LIGHTING PLANS;
PAVING AND LIGHTING DETAILS AND
CUTSHEETS

5. STABILIZED DECOMPOSED GRANITE PRODUCT SPECIFICATIONS (PEDESTRIAN AND VEHICULAR)



SECTION 32 15 43

STABILIZER® FOR STABILIZED AGGREGATE PATHWAY: PEDESTRIAN ACCESS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes material and labor requirements for construction with decomposed granite or crushed 3/8" or 1/4" minus aggregate pathway with Stabilizer® binder additive for the following items:
 - 1. Stabilized Aggregate pathway and patios
- B. Related Sections:
 - 1. Section 31 00 00 – Earthwork
 - 2. Section 32 11 00 – Stabilizer® for Stabilized Aggregate Pavement: Firelanes, Driveways and Parking Lots.

1.2 PERFORMANCE REQUIREMENTS

- A. Perform gradation of decomposed granite material or 3/8" or 1/4" minus crushed aggregate in accordance with ASTM C 136 – Method for Sieve Analysis for Fine and Course Aggregates.

1.3 SUBMITTALS

- A. Products Data: For each product specified. Submit a 5 lb. sample and sieve analysis for grading of decomposed granite or crushed 3/8" or 1/4" minus aggregate to be sent to Stabilizer Solutions, Inc. prior to any construction – (allow 2 week turn around). Must be approved by Landscape Architect and Owner.
- B. Shop Drawings: Show details of installation, including plans and sections.
- C. LEED Submittals:
 - 1. Credit MR 4 – Recycled Content: Attach product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.
 - 2. Credit MR 5 – Regional Materials: Attach product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
 - 3. Credit MR 6 – Rapidly Renewable Materials: Attach product data and certification letter indicating percentages by weight of rapidly renewable materials for each product. Include statement indicating costs for each product having rapidly renewable material.
- D. Maintenance Instructions: Submit copy(ies) of manufacturer's written maintenance instructions in accordance with 01 73 23 – Operation and Maintenance Data.

1.4 PROJECT/SITE CONDITIONS

- A. Field Measurements: Each bidder is required to visit the site of the Work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.
 - 1. Where surfacing is indicated to fit with other construction, verify dimensions of other construction by field measurements before proceeding with the work.
- B. Environmental Limitations: Do not install Stabilized Aggregate pathway during rainy conditions or below 40 degrees Fahrenheit and falling.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Installer to provide evidence to indicate successful experience in providing Stabilized Aggregate surface or ability to follow installation instructions.
- B. Mock-ups: Install 4 ft. wide x 10 ft. long mock-up of decomposed granite or 3/8" or 1/4" minus crushed aggregate surfacing with Stabilizer® additive at location specified by owner's representative.
- C. Compaction testing to be provided by contractor, one test per 2,000 square feet of base course.
- D. Manufacturer's technical representative shall visit the site at the start of an installation to ensure the installer understands the correct installation methods to use.

1.6 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Warranty: Submit a written warranty executed by the installer agreeing to repair or replace components of Stabilized Aggregate that fail in materials or workmanship within the specified warranty period. Stabilizer Solutions, Inc. does not warranty "Stabilizer®" purchased from a non-approved Stabilizer Solutions, Inc. licensee. Failures include, but are not limited to, the following:
 - 1. Premature wear and tear, provided the material is maintained in accordance with manufacturer's written maintenance instructions.
 - 2. Failure of system to meet performance requirements.
- C. Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.
- D. Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs as required.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Stabilizer® for Stabilized Aggregate surfaces provided by the following manufacturer:
 - 1. Stabilizer Solutions, Inc. 33 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email info@stabilizersolutions.com

2.2 MATERIALS

- A. Decomposed Granite or 3/8" or 1/4" crushed aggregate screenings
 - 1. Sand and crushed stone shall consist of inert materials that are hard and durable, with stone free from surface coatings and deleterious materials. Gradation requirements shall be as follows:
 - 2. Crushed Stone Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve AASHTO T11-82 and T2782

1/4" MINUS AGGREGATE GRADATION

U.S. Sieve No.	Percent Passing by Weight
# 3/8"	100
# 4	90 – 100
# 8	75 – 80
# 16	55 – 65
# 30	40 – 50
# 50	25 – 35
# 100	15 – 20
# 200 to	10 – 15

- 3. Acceptable local supplier list to be provided by Architect
- B. Stabilizer® Binder
 - 1. Patented, non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" or 1/4" minus aggregate.
 - 2. Product to have 64% pre-consumer recycled content.
 - 3. Product shall have 25 years experience at same formulation.

2.3 EXCESS MATERIALS

- A. Provide owner's authorized rep. with the following excess materials for use in future Stabilized Aggregate repair: 40 to 50 lb. Bags of the Stabilized Aggregate blended with proper amount of Stabilizer®.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Base shall be 3" compacted layer of your state's DOT recommended crushed granular road base. Make any corrections necessary to base furnished and installed to bring gravel to the elevations shown on the drawing.
- B. Pre-soak base material with water and compact to 95% determined by Test Method ASTM D 1557 prior to installing Stabilized Aggregate. Compaction testing to be provided by project owner, one test per 2,000 square feet of base.
- C. Although porous, it is recommended to have proper drainage available to ensure no standing water on surface or adjacent to Stabilized Aggregate, including downspouts when placed under roof overhang and surface drains.

- D. Before proceeding with installation, notify Owner's Representative in writing of unsuitable site/base conditions.

3.2 BLENDING STABILIZER

- A. Stabilizer® shall be thoroughly pre-mixed with aggregate at the rate of 15-lbs of Stabilizer® per 1-ton of aggregate. Verify with manufacturer correct Stabilizer® rate for your project and climate. Drop spreading of Stabilizer® over pre-placed aggregate or mixing by rototilling is not acceptable. Stabilizer shall be mechanically pre-mixed per manufacturer's recommendations using an approved mechanical blending unit to adequately blend Stabilizer® with aggregate (Bucket blending is not an approved blending apparatus). Always blend Stabilizer® and aggregate DRY.

3.3 PLACEMENT

- A. After pre-blending, place Stabilized Aggregate directly on prepared sub-grade. Level to desired grade and cross section. Depth of pathways shall be 3" for heavy foot traffic and light vehicles. DO NOT place on filter fabric. Contact Stabilizer Solutions, Inc. for installation on slopes greater than 8%.

3.4 WATERING

- A. Water heavily for full-depth moisture penetration of profile. Water activates Stabilizer®. Apply 25 to 45-gallons of water per 1-ton to achieve saturation. Randomly test for depth using a probing device, which reaches full depth.
- B. Contractor shall wait a minimum of 6 – 72 hours or until such time that the Stabilized Aggregate is able to accept compaction from a 1 to 5 ton roller without separation, plowing or any other physical compromise of the aggregate.
- C. If surface aggregate dries significantly quicker than subsurface material, lightly mist surface before compaction.

3.5 COMPACTION

- A. Compact Stabilized Aggregate to 85% relative compaction by equipment such as; a 2 to 5-ton double drum roller making 3 to 4 passes. Do not begin compaction for 6 hours after placement and up to 72 hours. DO NOT use a vibratory plate compactor or vibration feature on roller, as vibration separates large aggregate particles. If pumping or pancaking of surface occurs, surface is still too wet to roll.
- B. Take care in compacting surface when adjacent to planting and irrigation systems, use 8" or 10" hand tamp. Installation of Stabilized Aggregate more than 3" thick shall be installed in lifts. If 4" thick compacted (2) 2" lifts. If 5" thick compacted (2) 2.5" lifts. If Stabilized Aggregate is pre-moistened before installation entire 4" or 5" lift may be installed.
- C. Lightly spray surface area following compaction. Do not disturb aggregate surface with spray action.

3.6 INSPECTION

- A. Finished surface shall be smooth, uniform and solid with no evidence of chipping or cracking. Cured and compacted pathway shall be firm throughout profile with no spongy areas. Loose material shall not be present on surface after installation, but may appear after use and according to environmental conditions. Pathway shall remain stable underneath loose granite on top with a "natural" look. Any significant irregularities in path surface shall be repaired to the uniformity of entire installation.

3.7 PROTECTION

- A. Contractor shall furnish and install construction fence around new surface to prevent public access. Fencing shall be maintained in place for a minimum of 12 - 72 hours after completion of installation, or as directed by the Owner' Representative. Drying period may take longer due to weather conditions.
- B. Contractor shall notify Owner's Representative that landscape irrigation shall be restricted near Stabilized Aggregate surface until drying period is complete. Standing water on surface and adjacent to path shall be restricted at all times.

3.8 MAINTENANCE

- A. Remove debris, such as paper, grass clippings, or organic material by mechanically blowing or hand raking as needed. When plowing snow, use rubber baffle on plow blade or wheels on plow to lift blade 1/4" off the surface.
- B. During first year, minor amounts of loose aggregate may appear on surface (1/16 to 1/4"). If material exceeds a 1/4", redistribute over entire surface. Water to 1" depth and compact with power roller of no less than 1000-lbs. Repeat as needed. If cracking occurs, sweep fines into cracks, water thoroughly and hand tamp with an 8" – 10" hand tamp.

3.9 REPAIRS

- A. Excavate damaged area to the depth of the Stabilized Aggregate and square off sidewalls.
- B. If area is dry, moisten damaged portion lightly.
- C. Pre-blend the dry required amount of Stabilizer® with the proper amount of aggregate in a concrete mixer.
- D. Add water to the pre-blended Stabilized Aggregate. Thoroughly moisten mix with 25 to 45 gallons per 1-ton of pre-blended material or to approximately 10% moisture content.
- E. Apply moistened pre-blended Stabilized Aggregate to excavated area to finish grade.
- F. Compact with an 8" to 10" hand tamp or 250 to 300 pound roller. Keep traffic off areas for 12 to 48 hours after repair has been completed.

END OF SECTION



SECTION 32 11 00
STABILIZER® FOR STABILIZED AGGREGATE PAVEMENT:
FIRELANES, DRIVEWAYS AND PARKING LOTS

PART 1 - GENERAL

1.1 SUMMARY

- A. The work of this Section consists of all paving work and related items as indicated on the drawings and or as specified herein and includes, but is not limited to, the following items:
 - 1. Stabilized Aggregate firelane, driveway, and parking lot surfacing.
- B. Related Sections:
 - 1. Section 31 00 00 – Earthwork
 - 2. Section 32 15 43 – Stabilizer® for Stabilized Aggregate Pathway Pedestrian Access
- C. General Provisions
 - 1. All of the contract documents, including General and Supplementary Conditions and Division I General Requirements, apply to the work of this Section.
 - 2. Examine all drawings and all other Sections of the Specifications for requirements therein affecting the work of this trade.
 - 3. Coordinate work with that of all those affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 PERFORMANCE REQUIREMENTS

- A. The following standards and definitions are applicable to the work of this Section to the extent referenced herein:
 - 1. Standard Specifications: Highway Department, Standard Specifications for Highways and Bridges, latest edition.
 - 2. ASTM: American Society for Testing and Materials.
 - 3. AASHTO: American Association of State Highway and Transportation Officials.

1.3 SAMPLES AND SUBMITTALS

- A. Sieve analysis of aggregate for firelanes, driveways, and parking lots.
- B. Samples and or shop drawings for the following: Aggregate for strength and color– firelanes, driveways, and parking lots.
- C. Construction Samples:
 - 1. Stabilized Aggregate firelane, driveway, and parking lot surfacing: Construct a 12' x 24' sample of finished Stabilized Aggregate surface as directed by the Owner's Representative on site.
 - 2. General:
 - a. Schedule mock-up construction so that mock-up can be accepted a minimum of 30 days prior to the application of paving surfaces represented by the mock-up.
 - b. Locate mock-up panel(s) in areas as directed by the Owner's Representative.
 - c. Continue to construct mock-ups until acceptable mock-up is produced (at no cost to the Owner). Acceptable mock-up shall be standard for texture, color and workmanship.
 - d. Use same setting bed and joint mixes used in accepted mock-up in final work unless otherwise directed by Owner's Representative.

- e. Protect accepted mock-ups from damage until completion and acceptance of the work represented by the mock-up.
- f. Remove mock-up panel(s) from the site at completion of the project, unless otherwise instructed by Owner's Representative.

D. LEED Submittals:

- 1. Credit MR 4 – Recycled Content: Attach product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.
 - 2. Credit MR 5 – Regional Materials: Attach product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
 - 3. Credit MR 6 – Rapidly Renewable Materials: Attach product data and certification letter indicating percentages by weight of rapidly renewable materials for each product. Include statement indicating costs for each product having rapidly renewable material.
- E. Maintenance Instructions: Submit copy(ies) of manufacturer's written maintenance instructions in accordance with 01 73 23 – Operation and Maintenance Data.

1.4 PROJECT/SITE CONDITIONS

- A. Field Measurements: Each bidder is required to visit the site of the work to verify the existing conditions. No adjustments will be made to the Contract Sum for variations in the existing conditions.
 - 1. Where surfacing is indicated to fit with other construction, verify dimensions of other construction by field measurements before proceeding with the work.
- B. Environmental Limitations: Do not install Stabilized Aggregate during rainy conditions or below 40 degrees Fahrenheit and falling.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Installer to provide evidence to indicate successful experience in providing Stabilized Aggregate surface or ability to follow installation instructions.
- B. Mock-ups: Install 4 ft. wide x 10 ft. long mock-up of decomposed granite or 3/8" or 1/4" minus crushed aggregate surfacing with Stabilizer® additive at location specified by owner's representative.
- C. Compaction testing to be provided by contractor, one test per 2,000 square feet of base course.
- D. Manufacturer's technical representative shall visit the site at the start of an installation to ensure the installer understands the correct installation methods to use.

1.6 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Warranty: Submit a written warranty executed by the installer agreeing to repair or replace components of Stabilized Aggregate that fail in materials or workmanship within the specified warranty period. Stabilizer Solutions, Inc. does not warranty "Stabilizer®" purchased from a non-approved Stabilizer Solutions, Inc. licensee. Failures include, but are not limited to, the following:
 - 1. Premature wear and tear, provided the material is maintained in accordance with manufacturer's written maintenance instructions.

- 2. Failure of system to meet performance requirements.
- C. Warranty Period: Contractor shall provide warranty for performance of product. Contractor shall warranty installation of product for the time of one year from completion.
- D. Contractor shall provide, for a period of sixty days, unconditional maintenance and repairs as required.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Stabilizer® for Stabilized Aggregate surfaces provided by the following manufacturer:
 - 1. Stabilizer Solutions, Inc. 33 South 28th St., Phoenix, AZ 85034; phone (602) 225-5900, (800) 336-2468; fax (602) 225-5902; website stabilizersolutions.com; email info@stabilizersolutions.com

2.2 MATERIALS

- A. Sand and crushed stone shall consist of inert materials that are hard and durable, with stone free from surface coatings and deleterious materials.
 - 1. The sand equivalent shall be in the range of 35-55. The R-value shall be a minimum of 71. ASTM testing shall be used for the sand equivalent and R-value determination.
 - 2. Dense graded crushed stone base shall be furnished and installed as required and specified to a 6” compacted depth.
 - 3. Gradation requirements shall be as follows:

U.S. Sieve No.	Percent Passing by Weight
# 1/2"	95 – 100
# 3/8"	90 – 100
# 4	65 – 80
# 8	48 – 63
# 16	40 – 49
# 30	30 – 40
# 50	20 – 27
# 100	10 – 18
# 200	10 - 12

- 4. Acceptable local supplier list to be provided by Architect
- B. Stabilizer® Binder
 - 1. Patented, non-toxic, organic binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8” or 1/4" minus aggregate.
 - 2. Product to have 64% pre-consumer recycled content.
 - 3. Product shall have 25 years experience at same formulation.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Base shall be 6" compacted layer of the state's DOT recommended crushed granular road base. Make any corrections necessary to base furnished and installed to bring gravel to the elevations shown on the drawing.
- B. Pre-soak base material with water and compact to 95% determined by Test Method ASTM D 1557 prior to installing Stabilized Aggregate. Compaction testing to be provided by project owner, one test per 2,000 square feet of base.
- C. Although porous, it is recommended to have proper drainage available to ensure no standing water on surface or adjacent to Stabilized Aggregate, including downspouts when placed under roof overhang and surface drains.
- D. Before proceeding with installation, notify Owner's Representative in writing of unsuitable site/base conditions.

3.2 BLENDING

- A. Stabilizer® shall be thoroughly pre-mixed with aggregate at the rate of 15-lbs of Stabilizer® per 1-ton of aggregate. Verify with Stabilizer Solutions, Inc. for correct Stabilizer® rate for project and climate conditions. Drop spreading of Stabilizer® over pre-placed aggregate or mixing by rototilling is not acceptable for vehicular access. Stabilizer shall be mechanically pre-mixed per manufacturer's recommendations using an approved mechanical blending unit that will adequately mix and blend Stabilizer® with aggregate (Bucket blending is not an approved blending apparatus). Always blend Stabilizer® and aggregate DRY.

3.3 PLACEMENT

- A. Place the Stabilized Aggregate directly on a prepared base, and rake smooth to desired grade and cross section. Place material to sufficient depth to allow 4" for residential or 5" for commercial after compaction. Installation of Stabilized Aggregate to be installed in lifts. If 3" thick compacted for paths (2) 1.5" lifts. If 4" thick compacted for vehicular (2) 2" lifts. If Stabilized Aggregate is pre-moistened before installation entire 3" or 4" lift may be installed. DO NOT place on filter fabric. Contact Stabilizer Solutions, Inc. for installation on slopes greater than 8%.

3.4 WATERING

- A. Water heavily for full-depth moisture penetration of profile. Water activates Stabilizer®, saturate to total depth. Apply 25 to 45-gallons of water per 1-ton. Application test moisture using a probing device reaching full depth.
- B. Contractor shall wait a minimum of 6 – 72 hours or until such time that the Stabilized Aggregate is able to accept compaction from a 2 to 5 ton roller without separation, plowing or any other physical compromise of the aggregate.
- C. If surface aggregate dries significantly quicker than subsurface material, lightly mist surface before compaction.

3.5 COMPACTION

- A. Compact Stabilized Aggregate to 85% relative compaction by equipment such as; a 2 to 5-ton double drum roller making 3 to 4 passes. Do not begin compaction for 6 hours after placement and up to 72 hours. DO NOT use a vibratory plate compactor or vibration feature on roller, as vibration separates large aggregate particles. If pumping or pancaking of surface occurs, surface is still too wet to roll.
- B. Take care in compacting Stabilized Aggregate when adjacent to planting and irrigation systems. Hand tamping with 8" or 10" hand tamp recommended.
- C. Lightly spray surface area following compaction. Do not disturb aggregate surface with spray action.

3.6 INSPECTION

- A. Finished surface shall be smooth, uniform and solid. There shall be no evidence of chipping or cracking. Cured and compacted surface shall be firm throughout profile with no spongy areas. Loose material shall not be present on the surface after installation, but may appear after use and according to environmental conditions. Surface shall remain

stable underneath the loose granite on top with a 'natural' look. Any significant irregularities in Stabilized Aggregate surface shall be repaired to the uniformity of entire installation.

3.7 PROTECTION

- A. Contractor shall furnish and install construction fence around new surface to prevent public access. Maintain in place for a minimum of 12 - 72 hours after installation, or as directed by the Owner' Representative.
- B. Contractor shall notify Owner's Representative to restrict landscape irrigation near surface until drying period is complete. Standing water on surface and adjacent to path shall be restricted at all times.

3.8 MAINTENANCE

- A. Remove debris, such as paper, grass clippings, leaves or other organic material by mechanically blowing or hand raking the surface as needed. Any plowing program required shall involve the use of a rubber baffle on the plow blade or wheels to lift blade 1/4" off of paving surface.
- B. During the first year, a minor amount of loose aggregate may appear on the surface (1/16 to 1/4"). If material exceeds a 1/4", redistribute material over entire surface. Water thoroughly to 1" depth and compact with power roller of no less than 1000-lbs. This process shall be repeated as needed.
- C. If cracking occurs, simply sweep fines into cracks, water thoroughly and hand tamp with an 8" to 10" hand tamp .

3.9 REPAIRS

- A. Excavate damaged area to the depth of the Stabilized Aggregate and square off sidewalls.
- B. If area is dry, moisten damaged portion lightly.
- C. Pre-blend the dry required amount of Stabilizer® powder with the proper amount of aggregate in a concrete mixer.
- D. Add water to the pre-blended Stabilized Aggregate. Thoroughly moisten mix with 25 to 45 gallons per ton of pre-blended material or to approximately 10% moisture content.
- E. Apply moistened pre-blended Stabilized Aggregate to excavated area to finish grade.
- F. Compact with an 8" to 10" hand tamp or use a larger 1000 lb. roller. Keep traffic off areas for 12 to 48 hours after repair has been completed.

END OF SECTION