



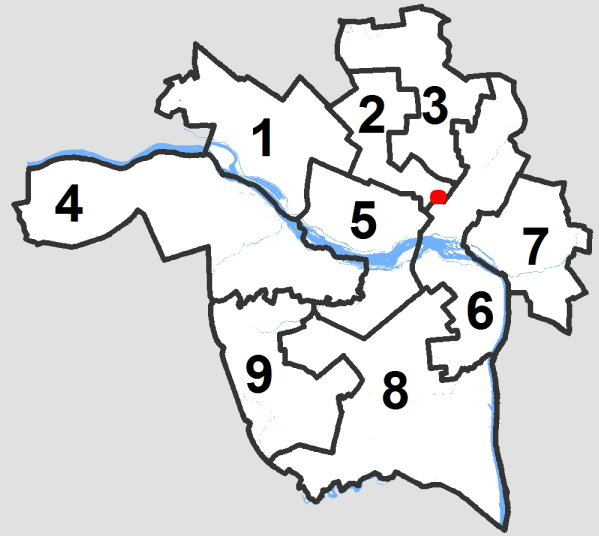
City of Richmond Department of Planning & Development Review

Location, Character, and Extent

LOCATION: 98 W Broad St

COUNCIL DISTRICT: 2

PROPOSAL: Final reievow of Maggie Walker Memorial Plaza



For questions, please contact Kathleen Onufer
at 646-5207 or Kathleen.Onufer@richmondgov.com





Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219
(804) 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

Application Type

- ☐ Addition/Alteration to Existing Structure
☒ New Construction
☒ Streetscape
☒ Site Amenity

- ☐ Encroachment
☐ Master Plan
☐ Sign
☐ Other

Review Type

- ☐ Conceptual
☒ Final

Project Name: Maggie L. Walker Memorial

Project Address: 98 West Broad Street, Richmond, VA 23220

Brief Project Description (this is not a replacement for the required detailed narrative) : _____

The purpose of the project is to construct a plaza at the intersection of West Broad Street, North Adams Street and Brook Road as a memorial that will honor Maggie L. Walker and will become an urban pocket park that will support the surrounding neighborhood and City of Richmond.

Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: Mark Olinger Email: Mark.Olinger@Richmondgov.com

City Agency: Planning and Development Review Phone: 804.646.6305

Address: 900 East Broad Street, Room 511, Richmond, VA 23219

Main Contact (if different from Applicant): John Carty

Company: VHB Phone: 804.343.7100

Email: JPCarty@VHB.com

Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.



Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219
(804) 646-6335

<http://www.richmondgov.com/CommitteeUrbanDesign>

Submission Requirements

- 10 copies of the application cover sheet and all support materials (see below), unless the application is for an encroachment, in which case only 6 copies are required. Plan sheets should be 11" x 17", folded to 8 1/2" x 11". If it is not possible to scale plans to these dimensions, please provide one set of larger, scaled plans.
- An electronic copy (PDF preferred) of all application materials, which can be burned to disc, emailed, or delivered by FTP.

All applications must include the attached cover sheet and the following support materials, as applicable to the project:

For Conceptual Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan which shows the general location and character of plant materials and notes any existing tree to be removed.

For Final Review

- A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
- A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas and areas of future expansion.
- A set of floor plans and elevations, as detailed as possible.
- A landscaping plan that includes a complete plant schedule, the precise location of all plant materials, and a landscape maintenance analysis. The plant schedule must show number, size and type of each planting proposed. If existing trees are to be removed, their size, type and location must be noted on the landscape plan.
- The location of all lighting units should be noted on a site plan, including wall-mounted, site and parking lot lighting. Other site details, such as benches, trash containers and special paving materials, should also be located. Include specification sheets for each item.
- Samples of all proposed exterior building materials, including but not limited to brick, mortar, shingles, siding, glass, paint and stain colors. When an actual sample cannot be provided, a product information sheet that shows the item or a photo of an existing item may be substituted.

Review and Processing

Once an application is received, it is reviewed by staff, who compiles a report that is sent to the UDC. A copy of the report and the meeting agenda will be sent to the applicant prior to the meeting. The applicant or a representative should be present at the UDC meeting or the application may be deferred to the next regularly scheduled meeting. It is also strongly suggested that a representative of the City Agency which will have final responsibility for the item be present at the meeting (if the applicant and the representative are not the same). Once the UDC recommends action on the application, it is automatically placed on the agenda for the next City Planning Commission (CPC) meeting. An exception to this is encroachment applications, recommendations for which are forwarded to the Department of Public Works. The applicant or a representative must be present at the CPC meeting or the application may be deferred to the next regularly scheduled meeting.



To: Urban Design Committee Review
Department of Planning and
Development Review, Planning and
Preservation Division
Richmond, VA

Date: June 16, 2016

Memorandum

Project #: 33965.08

Re: Detailed Project Narrative
Richmond Plaza Honoring Maggie Walker

Purpose of the Project is to design a plaza at the intersection of West Broad Street, North Adams Street and Brook Road as a memorial that will honor Maggie L. Walker and will become an urban pocket park that will support the surrounding neighborhood and city of Richmond with a program that includes:

- Primary focus is to be the sculpture plaza with seating
- Expands hardscape for outdoor public and private dining venues
- Continues to accommodate loading, deliveries and valet parking in support of the existing and future businesses that face the plaza
- Offers a flexible space for small events, school field trips, starting point for tours of the Jackson Ward neighborhood.

Project Background: The Maggie Walker Commemoration has been in the planning process for several years led by the Public Art Commission and the Site Selection Team with the facilitation of several public outreach campaigns. The plaza design was initiated in late 2015 with VHB joining the team. The following design parameters were provided:

- The location of the plaza had been determined by the block defined by West Broad Street, North Adams Street and one block of Brook Road from Broad Street to Adams Street was to be closed.
- The sculptor had been selected, Antonio Tobias Mendez (Toby). The concept for the memorial was to revolve around a central sculpture of Maggie Walker on a pedestal, which could include inscriptions about her life, achievements, quotes and time line.

Project Context:

- **Location:** This project is located in the urban core of Richmond and acts as a gateway to the Jackson Ward neighborhood from the heavily traveled Broad Street. This location is within blocks of the Maggie Walker residence, now a National Park, and the location of the Emporium that Mrs. Walker developed. This location was selected, after much deliberation, as the optimum place to create a memorial to honor Maggie Walker.
- **Transportation and Circulation:** Broad Street will provide multi-modal access with cars and a new Bus Rapid Transit (BRT) station just opposite this site in the median that will encourage higher pedestrian activity through this block. As such, one of the project directives was to add a walk along Adams Street on this block and to widen the current walk along the Brook Road buildings. While bikes are an anticipated mode of transportation, direction was provided that bike parking will be accommodated just outside the plaza. It is anticipated that a future kiosk or other visual mapping of the area will be included for wayfinding from this plaza to other features in the neighborhood. Accommodation for this future kiosk will be provided. The curb

along the east side of Adams Street will be moved in towards the plaza to allow space for loading, deliveries, school bus drop-off, and valet parking. The turning movements around this intersection have been mapped and striping and stop bars will be adjusted to help accommodate vehicular movement. The pedestrian crossing across Broad will be upgraded by the BRT project at W. Broad and Adams Street.

- **Urban Fabric:** The plaza is defined by the triangular shape formed by the buildings fronting on the streets of Broad, Adams and Brook. Much of the shade that is cast in this plaza area is due to the existing buildings that enclose this space. The current businesses internal to this block include a dining venue that could be expanded with outdoor dining within a 6' wide fenced area along the buildings. This location will be within walking distance of several businesses within the surrounding blocks and the addition of public outdoor seating will create a flexible space that would encourage the bag lunch crowd to spend their lunch hour in the park.
- **History:** Brook Road is one of the few diagonal roads that bisect the city. As such, the history of this road will be an important element to be featured in the design. The existing granite curb lines of the street will remain on each side of the memorial plaza. The pavement in this area will be a paver which resembles cobblestone to differentiate it from the standard red tone bricks used in the streetscape along Broad Street. The cobble pavers, used instead of true cobble to maintain ADA materials throughout the plaza, will be turned in a pattern that will be parallel to the old Brook Road. Granite end caps on each end of the block will be inscribed with "Historic Brook Road" and a featured element in the top of one or both end caps can include a relief map of the city at a given point in history when Brook Road defined a route of travel leaving the city. The use of brick pavers along the Broad Street streetscape will be continued with the exception of the intersection of Brook Road where the cobble pavers will come forward to the street edge to give the visual cue about this historical street. Brick paving will replace the concrete of the existing walk along Brook Road and will also be featured on the new walk along Adams Street
- **Utility infrastructure and Design Constraints:** There are several underground utility lines- sewer, gas, water, electric and communication lines that thread through this space. There are existing traffic signal poles that are to remain. The roadway and pedestrian lighting within and adjacent to this space will be evaluated to determine optimum placement of new poles. Stormwater runoff from the site will be managed in the combined sewer system and by maintaining existing drainage patterns. The design maintains the existing amount of pervious area such that the project does not need to construct stormwater retention.

Memorial Design: The memorial plaza will encircle the sculpture of Maggie Walker as she stands in formal dress as a bronze sculpture in a 9-10' height on a green granite pedestal that will be roughly 40" high and a 5' diameter. Surrounding the sculpture will be a green granite apron and radiating bands of darker granite flush with the pavement. There will be granite benches that will encircle the back and sides of the sculpture leaving the front of the sculpture open for a walk-up approach and enabling the viewer to back away for the best views to see the bas relief featured on the pedestal and inscriptions on the apron and radiating bands of granite. Each granite bench will be four feet long and two feet deep and may include inscriptions on the front or the top that will relay the various roles that Maggie Walker undertook in her lifetime. The dedication wall parallel to Broad Street will have Maggie Walker's name and may feature a quote from her or about her. This granite wall will signify the pedestrian entrance into the plaza and, like entering her home, will announce the arrival to this special place. With the change in materials from the surrounding brick pavers to the granite paving, walls and benches, this plaza, like this woman being memorialized, will

be elegant. Care will be taken in the detailing to include cuts or skateboard deterrents that will help preserve this investment. Special lighting is being considered that will cast light down on the sculpture and may encircle the plaza with low mounted LED lighting along an inset at the base of the benches. To further this as a unique destination in the city, special furnishings will be used throughout the plaza, including benches, trash cans, and tree grates.

Existing Trees to be Removed: There is an existing live oak tree that was planted in the 1980's that is centered in the existing triangle formed by the three streets. The tree has a low and broad evergreen canopy. The city arborist provided direction about the limits of disturbance and pruning that could take place if the tree were to be saved. The concept removes the tree to allow for the development of the sculpture plaza with Maggie Walker standing on a pedestal in a central location. In addition, there are crape myrtle trees in small tree pits in the walk along Brook Road and the west side of Adams Street that are multi-stem. The four crape myrtles along Brook Road are beginning to obscure business entrances and will be removed. The crape myrtles on Adams Street will also be removed in order to extend the feel of the plaza space.

Landscape Plan: The planting plan includes large shade trees along both sides of Adams Street as well as surrounding the sculpture. The trees will provide shade to the plaza but will be limbed up to maintain views of the sculpture from all perspectives. The trees will soften the building lines and define the plaza as a pedestrian space. The trees selected are *Quercus phellos* (Willow Oak) and *Gleditsia triacanthos* var. *inermis* 'Shademaster' (Shademaster Honeylocust). The trees are both proven to be very urban tolerant. The planting beds providing the backdrop to the memorial plaza and sculpture will be designed according to the level of maintenance selected by the city. The plant height in these beds will be maintained in the range of 6"-36" based on plant selection. Due to the small size of the beds, the selection is limited to two species of plants massed for a greater impact.

In order to increase the sense of space in the plaza, the design has reduced the total planted area by 33% since conceptual review. In addition to the reduced planting area, tree grates have been added to the three tree pits in the main triangle of the plaza. Groundcovers are still included in the rest of tree pits on the west side of Adams Street to provide a contrast to the surrounding paving. Between the reduced landscaping and the addition of the tree grates, an extra 417 square feet of walkable area is now provided.

	Previous Design	Current Design	Percent Reduction
Two large planting beds	663 square feet	482 square feet	27.3%
Total pervious area	931 square feet	618 square feet	33.6%

Estimated Construction Start Date

The intent is that the plaza will be completed by December 2016. In order to meet the completion date, construction would begin in August.



Project #: 33965.08
Date: 6/22/2016

Maggie Walker Plaza
Opinion of Probable Construction Cost
CONCEPTUAL DESIGN- PHASE 1- MAIN PLAZA

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	MOBILIZATION	1	LS	\$ 30,000	\$ 30,000
				SUBTOTAL =	\$ 30,000
EROSION AND SEDIMENTATION CONTROL					
2	E&S MEASURES	1	LS	\$ 5,000	\$ 5,000
3	MAINTENANCE OF TRAFFIC	1	LS	\$ 10,000	\$ 10,000
				SUBTOTAL =	\$ 15,000
DEMOLITION					
4	ABANDON STORM INLET AND PIPING	1	EA	\$ 10,000	\$ 10,000
5	ERADICATE PAVEMENT MARKINGS	1	LS	\$ 1,000	\$ 1,000
6	DEMO PAVEMENT AND HARDSCAPE	920	SY	\$ 8	\$ 7,360
7	DEMO TREE, INCLUDES STUMP REMOVAL	5	EA	\$ 200	\$ 1,000
8	DEMO LARGE TREE, INCLUDES STUMP REMOVAL	1	EA	\$ 5,000	\$ 5,000
				SUBTOTAL =	\$ 24,360
SITE WORK					
9	EARTHWORK	45	CY	\$ 22	\$ 990
10	INSTALL GRANITE CURB	350	LF	\$ 50	\$ 17,500
11	MILL AND OVERLAY ASPHALT PAVING	1	LS	\$ 2,000	\$ 2,000
12	MASONRY RETAINING WALLS AND BENCHES	126	LF	\$ 100	\$ 12,600
13	GRANITE WALL AND END TREATMENT VENEER	460	SF	\$ 80	\$ 36,800
14	GRANITE BENCH VENEER	260	SF	\$ 80	\$ 20,800
15	CARVING AND LETTERING	1	LS	\$ 25,000	\$ 25,000
16	RED BRICK SIDEWALK	270	SY	\$ 110	\$ 29,700
17	BROOK ROAD COBBLESTONE PAVERS	170	SY	\$ 110	\$ 18,700
18	MEMORIAL CIRCLE PAVERS - LIGHT	1,520	SF	\$ 60	\$ 91,200
19	MEMORIAL CIRCLE PAVERS - DARK	300	SF	\$ 60	\$ 18,000
20	6" CONCRETE WHEELCHAIR RAMP, WITH TRUNCATED DOMES	2	EA	\$ 1,000	\$ 2,000
21	INSTALL PAVEMENT MARKINGS	1	LS	\$ 3,000	\$ 3,000
22	INSTALL SIGN POSTS	4	EA	\$ 500	\$ 2,000
				SUBTOTAL =	\$ 280,290
UTILITIES					
23	INSTALL DOGHOUSE MANHOLE	10	VF	\$ 620	\$ 6,200
24	INSTALL TRAP INLET	1	EA	\$ 5,800	\$ 5,800
25	INSTALL STORM PIPING	1	LS	\$ 1,700	\$ 1,700
26	INSTALL YARD DRAIN INLET	3	EA	\$ 1,000	\$ 3,000
27	ADJUST RIMS ON EXISTING UTILITIES	3	EA	\$ 2,000	\$ 6,000
28	INSTALL PEDESTRIAN LIGHT FIXTURE	2	EA	\$ 10,000	\$ 20,000
29	INSTALL ACORN LIGHT FIXTURE	1	EA	\$ 5,000	\$ 5,000
30	INSTALL UPLIGHTING AND BENCH LIGHTING	1	LS	\$ 15,000	\$ 15,000
31	RELOCATE COBRA HEAD LIGHT POLE	1	LS	\$ 30,000	\$ 30,000
32	ELECTRICAL WIRING	1	LS	\$ 5,000	\$ 5,000
				SUBTOTAL =	\$ 97,700
LANDSCAPING					
33	INSTALL TREE	8	EA	\$ 1,000	\$ 8,000
34	CONSTRUCT NEW TREE WELL UP TO 25 SF	8	EA	\$ 350	\$ 2,800
35	ADDITIONAL SITE LANDSCAPING AND SEEDING	1	LS	\$ 10,000	\$ 10,000
				SUBTOTAL =	\$ 20,800
SITE FURNISHINGS					
36	INSTALL CAST IRON TREE GRATE	4	EA	\$ 3,000	\$ 12,000
37	INSTALL DECORATIVE BENCH	6	EA	\$ 2,000	\$ 12,000
38	INSTALL TRASH CANS	4	EA	\$ 500	\$ 2,000
				SUBTOTAL =	\$ 26,000
PHASE 1 SUBTOTAL =					\$ 494,150
39	CONTINGENCY @ 25%				\$ 123,538
				TOTAL =	\$ 617,688

Note:

-This estimate does not include bonding costs



Project #: 33965.08
Date: 6/22/2016

Maggie Walker Plaza

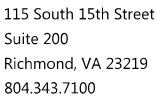
Opinion of Probable Construction Cost






CONCEPTUAL DESIGN- PHASE 2- WEST OF ADAMS ST

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1	MOBILIZATION (INCLUDED IN PHASE 1 COST)	1	LS	\$ -	\$ -
				SUBTOTAL =	\$ -
EROSION AND SEDIMENTATION CONTROL					
2	E&S MEASURES	1	LS	\$ 1,000	\$ 1,000
				SUBTOTAL =	\$ 1,000
DEMOLITION					
3	DEMO PAVEMENT AND HARDSCAPE	170	SY	\$ 8	\$ 1,360
4	SALVAGE AND PALLET EXISTING BRICKS, DELIVER TO CITY YARD	120	SY	\$ 50	\$ 6,000
5	DEMO TREE, INCLUDES STUMP REMOVAL	4	EA	\$ 200	\$ 800
				SUBTOTAL =	\$ 8,160
SITE WORK					
6	EARTHWORK	10	CY	\$ 15	\$ 150
7	INSTALL GRANITE CURB	70	LF	\$ 50	\$ 3,500
8	RED BRICK SIDEWALK	120	SY	\$ 110	\$ 13,200
9	6" CONCRETE WHEELCHAIR RAMP, WITH TRUNCATED DOMES	3	EA	\$ 1,000	\$ 3,000
10	INSTALL PAVEMENT MARKINGS	1	LS	\$ 2,000	\$ 2,000
11	INSTALL SIGN POSTS	2	EA	\$ 500	\$ 1,000
				SUBTOTAL =	\$ 16,200
LANDSCAPING					
12	INSTALL TREE	4	EA	\$ 1,000	\$ 4,000
13	CONSTRUCT NEW TREE WELL UP TO 25 SF	4	EA	\$ 350	\$ 1,400
14	ADDITIONAL SITE LANDSCAPING AND SEEDING	1	LS	\$ 2,000	\$ 2,000
				SUBTOTAL =	\$ 7,400
PHASE 2 SUBTOTAL =					\$ 32,760
15	CONTINGENCY @ 25%				\$ 8,190
				TOTAL =	\$ 40,950






Note:

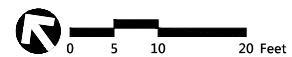
-This estimate does not include bonding costs



	BRICK SIDEWALK
	COBBLESTONE PAVER
	PLAZA GRANITE
	MEMORIAL GRANITE
	MILL & OVERLAY 2"–SM–95

Sign Summary

M.U.T.C.D. Number	Specification		Desc.
	Width	Height	
R7-6	12"	18"	
R7-6L	12"	18"	
R7-1L	12"	18"	
R7-1R	12"	18"	
R8-3a	12"	12"	



**Maggie Lena Walker
Memorial and Plaza**
98 West Broad Street
Richmond, Virginia

No.	Revision	Date	Approved by

Designed by _____	Checked by _____
-------------------	------------------

Issued for _____ Date _____

June 16, 2016

June 16, 2016

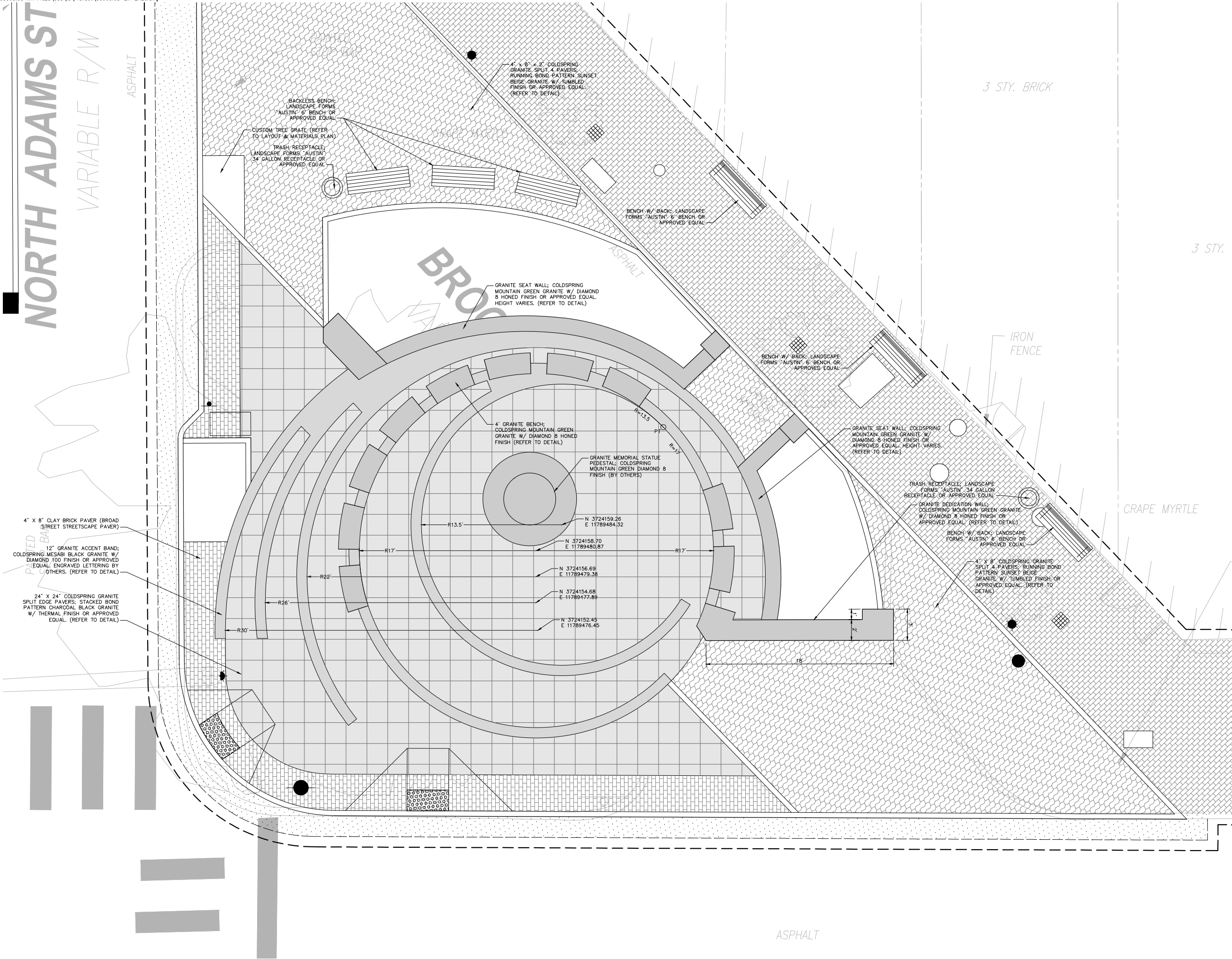
Layout and Materials Plan



C4.01

Sheet 1 of 1

Project Number
33965.08



vhb
115 South 15th Street
Suite 200
Richmond, VA 23219
804.343.7100
vhb.com

Maggie Lena Walker Memorial and Plaza
98 West Broad Street
Richmond, Virginia

No.	Revision	Date	Appr'd.

Designed by	Checked by

Issued for: _____ Date: June 16, 2016

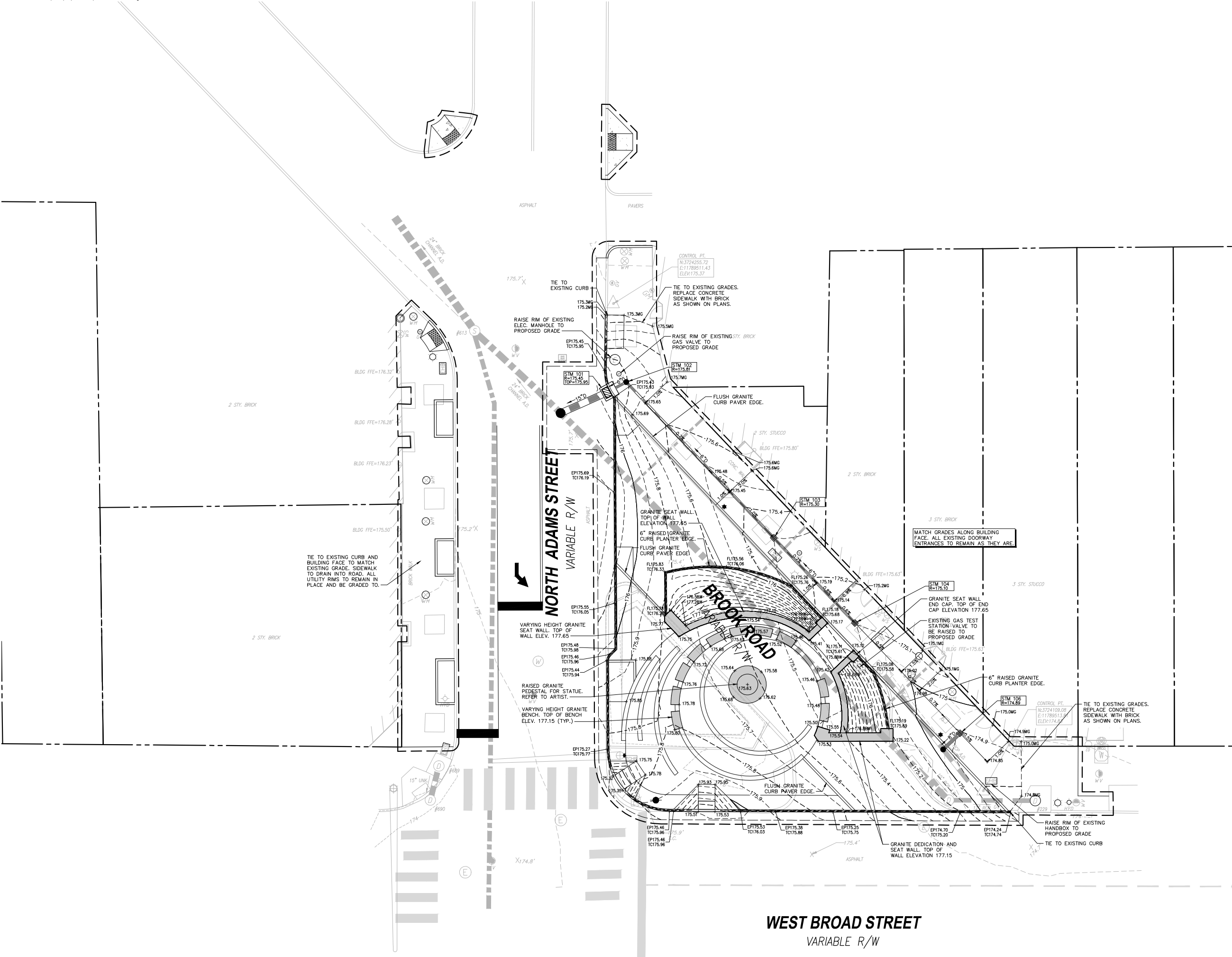
Drawing Title
**Plaza Enlargement
Layout & Materials Plan**

Drawing Number
C4.02

Sheet _____ of _____

Project Number
33965.08





Maggie Lena Walker
Memorial and Plaza
98 West Broad Street
Richmond, Virginia

No.	Revision	Date	Appr'd.

Designed by

Checked by

Issued for

Date


June 16, 2016

Grading and
Drainage Plan

Drawing Title

Project Number

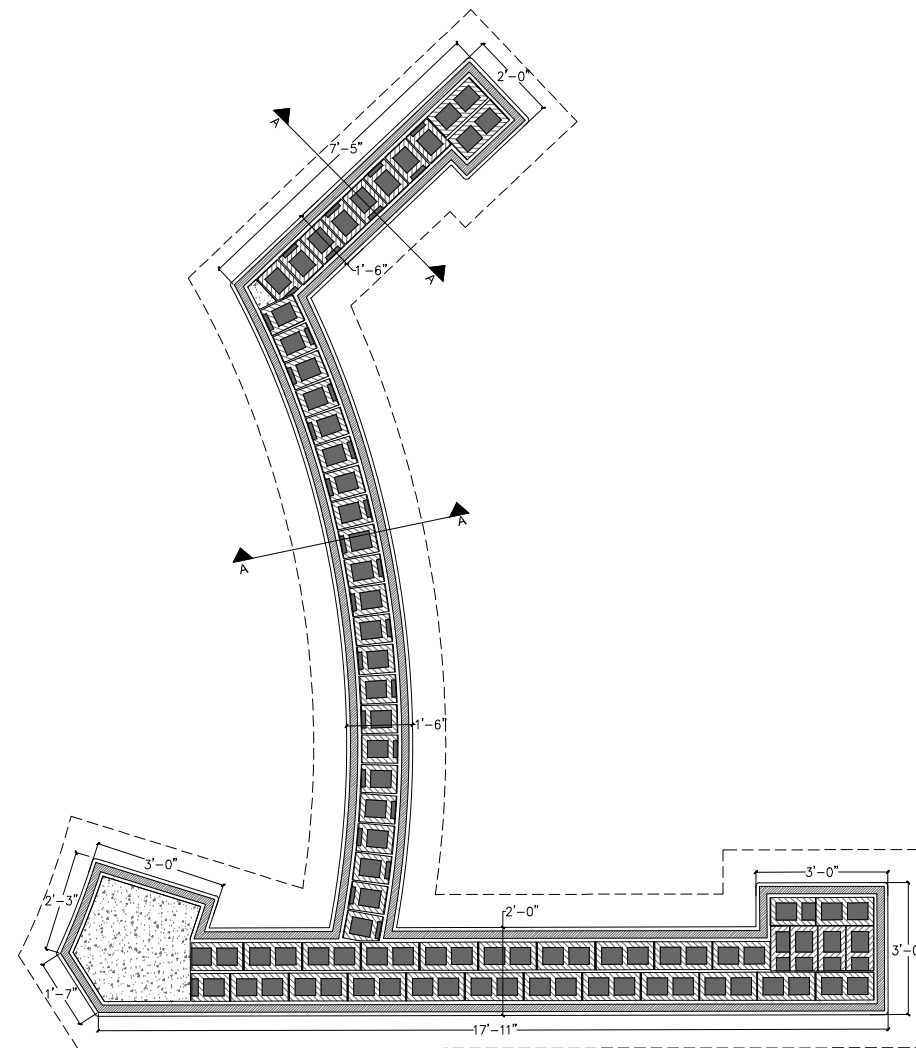
33965.08



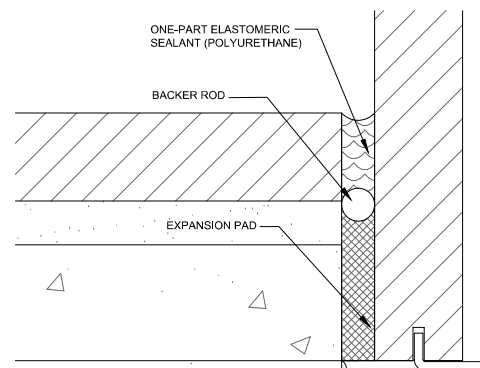
C5.01

Sheet

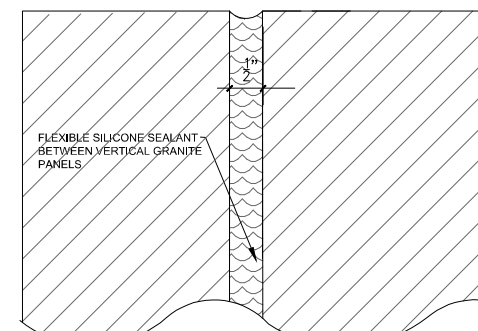
of



1/2"=1'-0" Source: VHB



1/2"=1" Source: VHB



1/2"=1" Source: VHB

No.	Revision	Date	Appr.
Designed by	Checked by		
Issued for	Date		June 16, 2016

Project Number
33965.08



"AUSTIN" BENCH W/ BACK



"AUSTIN" BACKLESS BENCH



"AUSTIN" TRASH RECEPTACLE

Trash Receptacles & Benches

Source: Landscape Forms

6/16



SUNSET BEIGE



MOUNTAIN GREEN



CHARCOAL BLACK

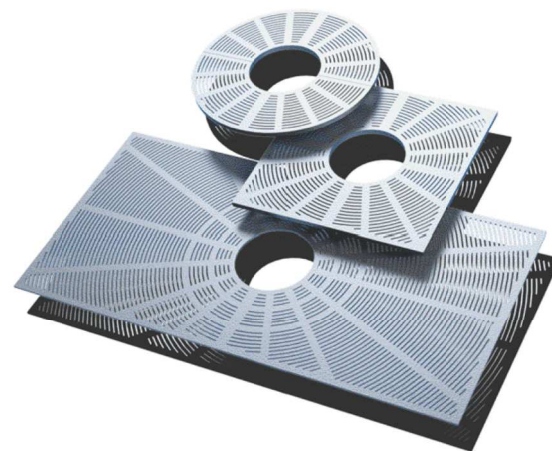
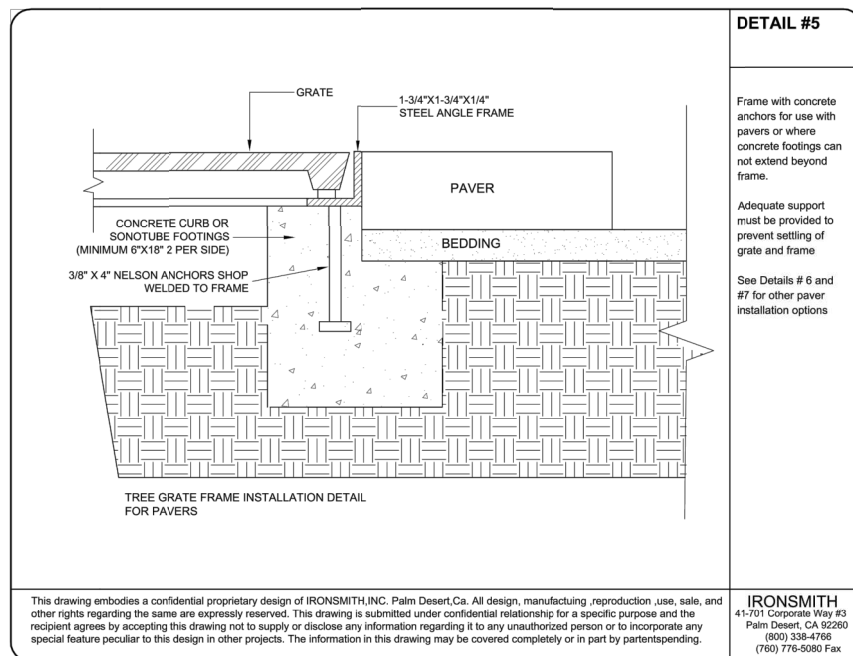


MESABI BLACK

Granite Color Palette

Source: Coldspring

6/16



IRONSMITH "OLYMPIAN" STYLE

Tree Grate

Source: Ironsmith.

6/16

**Maggie Lena Walker
Memorial and Plaza**

98 West Broad Street
Richmond, Virginia

[illegible]

Details

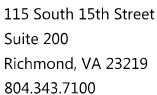
Drawing Number



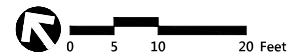
C7.05

Sheet of

Project Number
33965.08



<u>TREES</u>	QTY	BOTANICAL NAME	COMMON NAME	CONT	REMARKS	
GT	3	Gleditsia triacanthos var. inermis 'Shademaster' TM	Shademaster Honeylocust	3" CAL. B+B	10-12' Ht	
QP	6	Quercus phellos	Willow Oak	3" CAL. B+B	10-12' Ht	
<u>SHRUBS</u>	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	
AG	19	Abelia x grandiflora 'Little Richard'	Little Richard Abelia	3 gal	18" Ht	
<u>GROUNDCOVERS & GRASSES</u>	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	REMARKS
LM	87	Liriope muscari 'Big Blue'	Big Blue Liriope	1 gal	12" o.c.	
PA	367	Pennisetum alopecuroides 'Hameln'	Hameln Dwarf Fountain Grass	1 gal	12" o.c.	



**Maggie Lena Walker
Memorial and Plaza**
98 West Broad Street
Richmond, Virginia

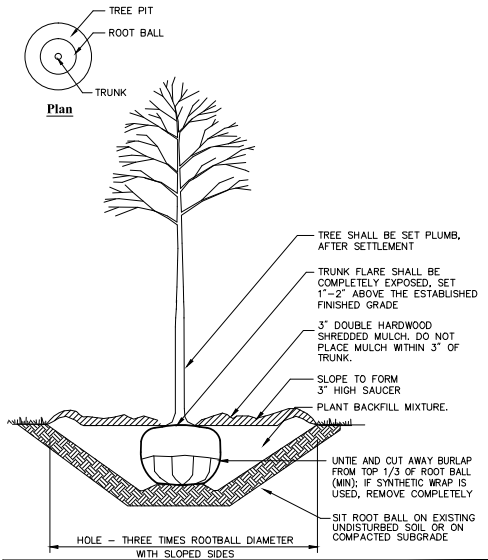
[illegible]

Planting Plan

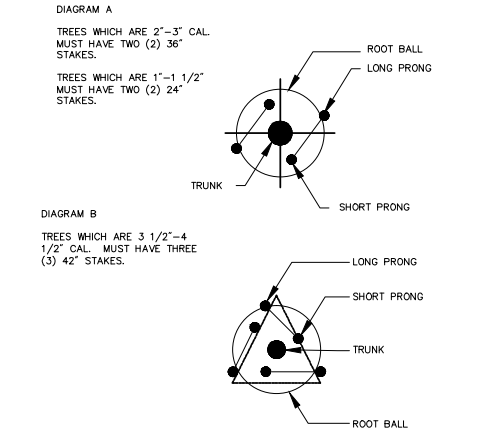


L1.01

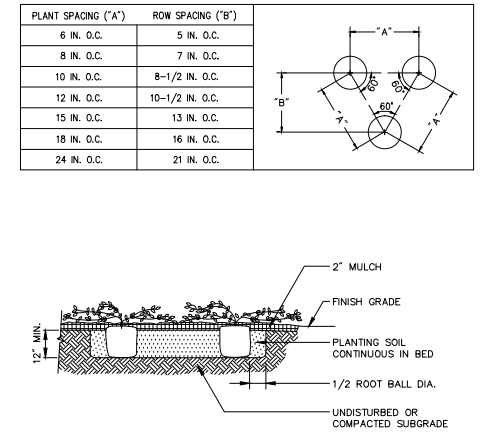
Project Number
33965.08



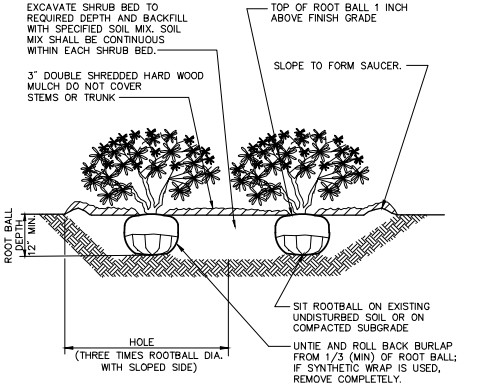
Tree Planting 1/10
N.T.S. Source: VHB LD_602



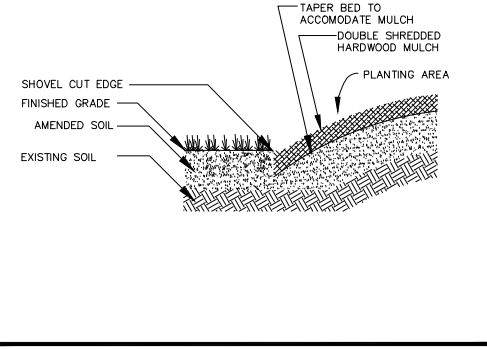
Below-Grade Tree Stabilizing System Detail 11/12
N.T.S. Source: VHB



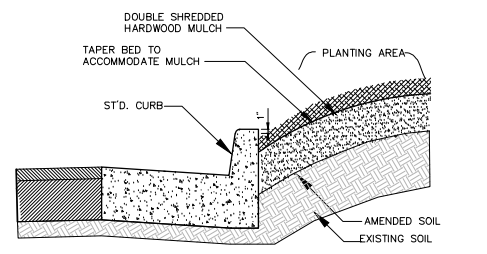
Ground Cover Planting 11/09
N.T.S. Source: VHB LD_615



Shrub Bed Planting 6/08
N.T.S. Source: VHB LD_601



Shovel Cut Edging Detail 7/15
N.T.S. Source: VHB



Curb-Bed Edging Detail 7/15
N.T.S. Source: VHB

GENERAL NOTES

- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
- NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
- ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE SEEDED WITH PERMANENT SEED MIX AS SPECIFIED.

TREE PROTECTION

- EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TREE PROTECTION FENCE. ERECT FENCE AS SHOWN ON PLANS PRIOR TO BRINGING EQUIPMENT OR MATERIALS ON SITE OR STARTING CONSTRUCTION.
- CONTRACTOR SHALL NOT OPERATE VEHICLES WITHIN THE TREE PROTECTION AREA. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS, OR DISPOSE OF ANY WASTE MATERIALS, WITHIN THE TREE PROTECTION AREA.
- DAMAGE TO EXISTING TREES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY A CERTIFIED ARBORIST AT THE CONTRACTOR'S EXPENSE.

TOPSOIL NOTES

- SOIL TESTING
 - (1.1) THE CONTRACTOR IS RESPONSIBLE FOR SOILS TESTING AND ANALYSIS FOR SUITABILITY FOR PLANTING AND LANDSCAPE TREATMENTS REQUIRED IN THIS CONTRACT. EXISTING TOPSOIL SHALL BE UTILIZED TO THE GREATEST EXTENT POSSIBLE THROUGHOUT THE PROJECT. A MINIMUM OF 3 SOIL SAMPLES SHALL BE TAKEN TO REPRESENT THE FULL RANGE OF SITE CONDITIONS. SOIL SAMPLES SHALL BE TAKEN TO BE REPRESENTATIVE OF THE ENTIRE TOPSOIL LAYER.
 - (1.2) SOIL ANALYSIS SHALL BE BY AN INDEPENDENT CERTIFIED LABORATORY AND SHALL INCLUDE SOIL TEXTURE, COMPOSITION, ORGANIC MATTER CONTENT, PH, SALINITY, AND FERTILITY (AVAILABLE NUTRIENTS). FOR SOILS NOT MEETING TOPSOIL SPECIFICATIONS BELOW, THE REPORT SHALL INCLUDE RECOMMENDATIONS FOR AMENDING THE SOILS TO BRING THEM INTO COMPLIANCE WITH THESE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR THE COSTS OF SOILS TESTING, AND SHALL SUBMIT 3 COPIES OF THE SOILS REPORT TO THE OWNER.
 - (2) TOPSOIL
 - (2.1) NECESSARY QUANTITIES OF TOPSOIL SHALL BE SUPPLIED BY THE CONTRACTOR AND APPROVED BY THE OWNER OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL APPLY TOPSOIL ONLY AFTER SECURING SOIL TEST, AS SPECIFIED ABOVE, APPLYING RECOMMENDED TREATMENT THEREOF, AND RECEIVING APPROVAL.
 - (2.2) TOPSOIL REQUIREMENTS MAY BE MET IN ANY OF THE FOLLOWING WAYS:
 - (A) ON-SITE TOPSOIL MEETING SPECIFICATIONS MAY BE STRIPPED AND STOCKPILED ON SITE.
 - (B) ON-SITE TOPSOIL NOT MEETING SPECIFICATIONS MAY BE STRIPPED, STOCKPILED AND AMENDED ON SITE, TO MEET SPECIFICATIONS.
 - (C) OFF-SITE TOPSOIL MEETING SPECIFICATIONS AND FROM AN APPROVED SOURCE MAY BE PROVIDED.
 - (2.3) TOPSOIL STOCKPILED FOR LATER USE SHALL BE STORED AT THE LOCATION SHOWN ON THE PLANS AND AT LOCATIONS APPROVED BY THE OWNER, UNLESS THE WORKING AREA IS SUCH THAT THE PRESENCE OF THE MATERIAL WOULD INTERFERE WITH ORDERLY PROSECUTION OF THE WORK. STOCKPILE AREAS OUTSIDE OF THE PROJECT LIMITS SHALL BE LOCATED BY THE CONTRACTOR AT HIS EXPENSE.
 - (2.4) STRIPPING TOPSOIL SHALL BE CONFINED TO THE AREA OVER WHICH THE EXCAVATION IS TO BE ACTIVELY PROSECUTED WITHIN 15 DAYS FOLLOWING THE STRIPPING OPERATION. EXCAVATION AND EMBANKMENT CONSTRUCTION SHALL BE CONFINED TO THE MINIMUM AREA NECESSARY TO ACCOMMODATE THE CONTRACTOR'S EQUIPMENT AND WORK FORCE ENGAGED IN THE EARTH MOVING WORK.
 - (2.5) TOPSOIL, EITHER ON-SITE OR OFF-SITE, SHALL BE THE ORIGINAL TOP LAYER OF A SOIL PROFILE FORMED UNDER NATURAL CONDITIONS, TECHNICALLY DEFINED AS THE "A" HORIZON BY THE SOIL SOCIETY OF AMERICA. IT SHALL CONSIST OF NATURAL, FRIABLE, LOAMY SOIL WITHOUT ADMIXTURES OF SUBSOIL, OR OTHER FOREIGN MATERIALS, AND SHALL BE REASONABLY FREE FROM STUMPS, ROOTS, HARD LUMPS, STIFF CLAY, NOXIOUS WEEDS, BRUSH, OR OTHER LITTER. STONES SHALL NOT BE LARGER THAN 1" IN DIAMETER. IT SHALL HAVE DEMONSTRATED BY EVIDENCE OF HEALTHY VEGETATION GROWING, OR HAVING GROWN ON IT PRIOR TO STRIPPING, THAT IT IS REASONABLY WELL DRAINED AND DOES NOT CONTAIN SUBSTANCES TOXIC TO PLANTS.

- "A" HORIZON: "A" HORIZONS SHALL BE MINERAL HORIZONS CONSISTING OF:
 - (1) HORIZONS OR ORGANIC MATTER ACCUMULATION FORMED OR FORMING AT OR ADJACENT TO THE SURFACE;
 - (2) HORIZONS THAT HAVE LOST CLAY, IRON, OR ALUMINUM, WITH RESULANT CONCENTRATIONS OF QUARTZ OR OTHER RESISTANT MINERALS OF SAND OR SILT SIZE; OR
 - (3) HORIZONS DOMINATED BY 1 OR 2 ABOVE BUT TRANSITIONAL TO AN UNDERLYING B OR C.
- HORIZON SUBDIVISIONS: "A1" HORIZONS SHALL BE MINERAL HORIZONS, FORMED OR FORMING AT OR ADJACENT TO THE HUMIDIFIED ORGANIC MATTER INTIMATELY ASSOCIATED WITH THE MINERAL FRACTION. THE SOIL IS A DARK OR DARKER THAN UNDERLYING HORIZONS BECAUSE OF THE PRESENCE OF ORGANIC MATTER. THE ORGANIC MATERIAL IS ASSUMED TO BE DERIVED FROM PLANT AND ANIMAL REMAINS DEPOSITED ON THE SURFACE OF THE SOIL OR DEPOSITED WITHIN THE HORIZON WITHOUT APPRECIABLE TRANSLLOCATION.
- A2 HORIZONS SHALL BE MINERAL HORIZONS IN WHICH THE FEATURE EMPHASIZED IS LOSS OF CLAY, IRON OR ALUMINUM, WITH RESULANT SIZES.
- ON-SITE AND IMPORTED TOPSOIL SHALL ACHIEVE OR BE AMENDED TO ACHIEVE THE FOLLOWING:
 - 1) TEXTURE: SANDY LOAM, LOAM, OR SANDY CLAY LOAM;
 - 2) TOPSOIL SHALL HAVE A PH IN THE RANGE OF 5.5 TO 7.0 PRIOR TO MIXING WITH AMENDMENTS. REFER TO SEEDING NOTE 4.3 AND PLANTING NOTE 4.5 FOR PH RANGE AFTER AMENDMENT. REPORT FROM INDEPENDENT TEST LAB IS TO INCLUDE RECOMMENDATION TO BRING PH TO LEVELS AS NOTED IN SEEDING AND PLANTING NOTES
 - 3) SOLUBLE SALT LEVEL: LESS THAN 844 PPM.
 - 4) ORGANIC MATTER: 3-5%.

PLANTING NOTES

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, ETC. NECESSARY TO COMPLETE ALL PLANTING AS SHOWN ON THIS DRAWING, AS SPECIFIED HEREIN OR IN SUPPLEMENTAL SPECIFICATIONS, AND/OR AS REQUIRED BY JOB CONDITIONS. THE WORK IN GENERAL INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

- SOIL TESTING OF AMENDED PLANT BACKFILL MIXTURE;
- TOPSOIL;
- PLANTING AREA PREPARATION;
- PLANTING PIT EXCAVATION AND SOIL AMENDMENT;
- PLANT MATERIAL AND MULCH;
- FERTILIZING;
- ANCHORING, (WHEN REQUIRED);
- CHEMICAL APPLICATION, (WHEN REQUIRED);
- MAINTENANCE AND GUARANTEE;
- ALL OTHER ITEMS NECESSARY TO MAKE WORK COMPLETE.

THE PLANTING CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH THE OTHER CONTRACTORS. THIS PLAN DOES NOT GUARANTEE THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES, PRIOR TO ANY CONSTRUCTION, EXCAVATION, OR ROTO-TILLING. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY OF VERIFYING THE LOCATIONS OF ALL UTILITIES, ABOVE AND/OR BELOW GROUND, PUBLIC AND/OR PRIVATE THAT MAY EXIST AND CROSS THROUGH THE AREAS OF CONSTRUCTION.

- QUALITY ASSURANCE
 - (1.1) QUALITY ASSURANCE: PLANTING SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING AND EXPERIENCED IN LANDSCAPE WORK.
 - (2) SUBMITTALS
 - (2.1) TOPSOIL ANALYSIS: PROVIDE FOR THE SERVICES OF AN INDEPENDENT SOIL TESTING LABORATORY TO PERFORM ANALYSIS OF TOPSOIL, TO BE USED, AND A DETERMINATION OF NUTRITIONAL REQUIREMENTS OF SOIL FOR ESTABLISHMENT OF PLANT MATERIAL BY LAB FOR SOIL AMENDMENTS.
 - (2.2) SOIL AMENDMENTS: PROVIDE MANUFACTURERS DATA ON AMENDMENTS AS RECOMMENDED IN TOPSOIL ANALYSIS AND AS NOTED BELOW.
 - (2.3) PLANT BACKFILL MIXTURE ANALYSIS: AFTER SOIL AMENDMENTS ARE ADDED TO SAMPLE SECONDARY TESTING IS TO BE PROVIDED TO PROVE AMENDED SOIL MEETS REQUIREMENTS.
 - (3) PLANTING AREA PREPARATION
 - (3.1) PLANTING AREAS, BECAUSE OF SOIL COMPACTION DURING CONSTRUCTION, ALL PLANTING AREAS SHALL BE LOOSENEED BY ROTO-TILLING AS SPECIFIED BELOW. AREAS UNDER THE DRY LINE OF TREES OR SHRUBS TO REMAIN IN PLACE SHALL NOT BE ROTO-TILLED. A PLANTING AREA IS ANY AREA IN WHICH NEW PLANTING OCCURS.
 - (3.2) PRIOR TO EXCAVATION OF INDIVIDUAL TREE AND SHRUB PITS, A DIAMETER EQUAL TO TEN TIMES THE DIAMETER OF THE ROOT BALL SHALL BE ROTO-TILLED TO A DEPTH 6" UNDER NO CIRCUMSTANCES SHALL THE ROTO-TILLED DEPTH BE GREATER THAN THE DEPTH OF THE ROOT BALL.
 - (3.3) IN CONTINUOUS SHRUB AND GROUND COVER BEDS, THE ROTO-TILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF 5 TIMES THE DIAMETER OF A SINGLE ROOTBALL OF THE PERIMETER PLANTS. DEPTH OF TILLAGE FOR SHRUBS SHALL BE AS SPECIFIED ABOVE.
 - (4) PLANTING PIT EXCAVATION AND SOIL AMENDMENT OF BACKFILL MIXTURE
 - (4.1) TREE AND SHRUB PITS SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL, AND SHALL BE DUG SO THAT THE BOTTOM OF THE ROOT BALL WILL REST ON UNDISTURBED SOIL, AND THE TOP OF THE ROOT BALL WILL BE 1" ABOVE FINISH GRADE.
 - (4.2) GROUND COVER, ANNUAL AND PERENNIAL BEDS SHALL BE TILLED TO A DEPTH OF 12", OR IF SOIL AMENDMENTS ARE REQUIRED, EXCAVATED TO A DEPTH OF 12", UNLESS OTHERWISE NOTED ON THE PLANS. PLANTS SHALL BE EVENLY SPACED WITHIN THE TILLED PLANTING AREA AND SET TO MAINTAIN THE ORIGINAL GROWING DEPTH WHILE ALLOWING FOR A 3" TOP DRESSING OF MULCH.
 - (4.3) WHENEVER POSSIBLE, THE EXCAVABLE SOIL SHOULD BE USED OR AMENDED TO BE USED AS BACKFILL MATERIAL. IN ORDER TO ELIMINATE OR MINIMIZE THE OCCURRENCE OF HYDROLOGIC DISCONTINUITIES, AND/OR SOIL INTERFACE PROBLEMS COMMON TO PLANTING BEDS CONTAINING SOILS OF DIFFERENT TEXTURE.
 - (4.4) WHERE SOILS TESTING OR SUBSEQUENT OBSERVATION INDICATES THAT THE TEXTURE OF THE EXISTING SOIL IS UNSUITABLE FOR THE PLANT SPECIES BEING PLANTED (I.E. HEAVY CLAY, PLUTE, SAND) THE ON-SITE SOIL SHALL BE AMENDED AS RECOMMENDED WITHIN THE SOILS REPORT TO PROVIDE SUITABLE TEXTURE, WHERE SOILS TESTS DO NOT REVEAL TEXTURAL DEFICIENCIES, YET SUBSEQUENT EXCAVATIONS DO, THE BACKFILL MIXTURE SHALL BE 66% EXISTING SOIL AND 33% TOPSOIL AS DEFINED ABOVE.
 - (4.5) WHERE SOILS TESTS INDICATE THAT THE PH, SALINITY OR CHEMICAL COMPOSITION IS UNSUITABLE FOR THE PLANT SPECIES BEING PLANTED, THE SOIL SHALL BE AMENDED AS RECOMMENDED WITHIN THE SOILS REPORT TO ACHIEVE SUITABLE CHEMICAL PROPERTIES. AFTER AMENDING, PLANT BACKFILL MIXTURE FOR DECIDUOUS PLANTS SHALL HAVE A PH VALUE BETWEEN 6.0 AND 6.5, AND FOR EVERGREEN OR SEMI-EVERGREEN PLANTS SHALL HAVE A PH VALUE BETWEEN 5.0 AND 6.0. A REPRESENTATIVE SAMPLE FROM THE EXCAVATED SOIL SHALL BE FIELD TESTED FOR PH UTILIZING A RELIABLE SOIL PH METER OR SOIL PH TEST KIT. THE PH VALUE OF THE NATURAL SOIL BACKFILL MIXTURE MAY BE AMENDED BY ADDING LIMESTONE OR ALUMINUM SULFATE AS NEEDED.

- PLANTING PIT EXCAVATION AND SOIL AMENDMENT OF BACKFILL MIXTURE
 - (4.1) TREE AND SHRUB PITS SHALL BE 3 TIMES THE WIDTH OF THE ROOTBALL, AND SHALL BE DUG SO THAT THE BOTTOM OF THE ROOT BALL WILL REST ON UNDISTURBED SOIL, AND THE TOP OF THE ROOT BALL WILL BE 1" ABOVE FINISH GRADE.
 - (4.2) GROUND COVER, ANNUAL AND PERENNIAL BEDS SHALL BE TILLED TO A DEPTH OF 12", OR IF SOIL AMENDMENTS ARE REQUIRED, EXCAVATED TO A DEPTH OF 12", UNLESS OTHERWISE NOTED ON THE PLANS. PLANTS SHALL BE EVENLY SPACED WITHIN THE TILLED PLANTING AREA AND SET TO MAINTAIN THE ORIGINAL GROWING DEPTH WHILE ALLOWING FOR A 3" TOP DRESSING OF MULCH.
 - (4.3) WHENEVER POSSIBLE, THE EXCAVABLE SOIL SHOULD BE USED OR AMENDED TO BE USED AS BACKFILL MATERIAL. IN ORDER TO ELIMINATE OR MINIMIZE THE OCCURRENCE OF HYDROLOGIC DISCONTINUITIES, AND/OR SOIL INTERFACE PROBLEMS COMMON TO PLANTING BEDS CONTAINING SOILS OF DIFFERENT TEXTURE.
 - (4.4) WHERE SOILS TESTING OR SUBSEQUENT OBSERVATION INDICATES THAT THE TEXTURE OF THE EXISTING SOIL IS UNSUITABLE FOR THE PLANT SPECIES BEING PLANTED (I.E. HEAVY CLAY, PLUTE, SAND) THE ON-SITE SOIL SHALL BE AMENDED AS RECOMMENDED WITHIN THE SOILS REPORT TO PROVIDE SUITABLE TEXTURE, WHERE SOILS TESTS DO NOT REVEAL TEXTURAL DEFICIENCIES, YET SUBSEQUENT EXCAVATIONS DO, THE BACKFILL MIXTURE SHALL BE 66% EXISTING SOIL AND 33% TOPSOIL AS DEFINED ABOVE.
 - (4.5) WHERE SOILS TESTS INDICATE THAT THE PH, SALINITY OR CHEMICAL COMPOSITION IS UNSUITABLE FOR THE PLANT SPECIES BEING PLANTED, THE SOIL SHALL BE AMENDED AS RECOMMENDED WITHIN THE SOILS REPORT TO ACHIEVE SUITABLE CHEMICAL PROPERTIES. AFTER AMENDING, PLANT BACKFILL MIXTURE FOR DECIDUOUS PLANTS SHALL HAVE A PH VALUE BETWEEN 6.0 AND 6.5, AND FOR EVERGREEN OR SEMI-EVERGREEN PLANTS SHALL HAVE A PH VALUE BETWEEN 5.0 AND 6.0. A REPRESENTATIVE SAMPLE FROM THE EXCAVATED SOIL SHALL BE FIELD TESTED FOR PH UTILIZING A RELIABLE SOIL PH METER OR SOIL PH TEST KIT. THE PH VALUE OF THE NATURAL SOIL BACKFILL MIXTURE MAY BE AMENDED BY ADDING LIMESTONE OR ALUMINUM SULFATE AS NEEDED.
- AMENDED BACKFILL SOIL REPLACES ONLY THE SOIL EXCAVATED FROM THE TREE AND SHRUB PIT (3 TIMES THE WIDTH OF THE ROOT BALL), NOT THE ENTIRE ROTO-TILLED AREA.
- FOR TREES IN POORLY DRAINED SOILS, A VERTICAL PIPE SHALL BE INSTALLED AT THE EDGE OF THE PLANT PIT EXCAVATION, EXTENDING TO A LEVEL EQUAL TO THE TOP OF THE MULCH. THE PIPE END SHALL BE THREADED AND FITTED WITH A THREADED CAP.
- PLANT MATERIAL AND MULCH
 - (5.1) THE NAMES OF PLANTS REQUIRED UNDER THIS CONTRACT CONFORM TO THOSE GIVEN IN L.H. BAILEY'S HORTUS THIRD, 1976 EDITION. NAMES OF VARIETIES NOT INCLUDED THEREIN CONFORM GENERALLY WITH NAMES ACCEPTED IN THE NURSERY TRADE. ALL PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THEIR SPECIES AND THEY SHALL BE SOUND, HEALTHY AND VIGOROUS, WITH WELL DEVELOPED ROOT SYSTEMS. ALL PLANT MATERIAL SHALL BE FREE FROM FRUIT OR SEED, PLANT DISEASES, AND INJURIES. ALL PLANTS SHALL EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE MINIMUM ACCEPTABLE SIZES. TREES SHALL HAVE SINGLE TRUNKS EXCEPT AS NOTED. ALL SHRUBS SHALL BE HEALTHY, VIGOROUS, AND OF GOOD COLOR. ONLY DAMAGED OR BROKEN BRANCHES OF PLANT MATERIAL MAY BE PRUNED AND ANY NECESSARY PRUNING SHALL BE DONE AT THE TIME OF PLANTING, HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE CENTRAL LEADER OF A PLANT BE PRUNED. BALLING AND BURLAPPING OF PLANTS SHALL FOLLOW THE CODE OF STANDARDS CURRENTLY RECOMMENDED BY THE AMERICAN STANDARD FOR NURSERY STOCK.
 - (5.2) ALL TAGS, STRINGS OR ANY OTHER MATERIAL ATTACHED TO THE PLANTS SHALL BE REMOVED AT THE TIME OF PLANTING. LABEL AT LEAST ONE TREE, SHRUB AND GROUND COVER OF EACH VARIETY WITH A SECURELY ATTACHED WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL NAME AND THE SIZE AS SPECIFIED IN THE PLANT LIST OF REQUIRED PLANTS. LABELS SHALL BE SECURELY ATTACHED TO PLANTS AND SHALL BE LEGIBLE FOR 60 DAYS AFTER DELIVERY TO THE PLANTING SITE. WIRE IDENTIFICATION TAGS SHALL NOT BE USED.
 - (5.3) SUBSTITUTIONS WILL BE PERMITTED ONLY UPON SUBMISSION OF PROOF THAT ANY PLANT IS NOT OBTAINABLE. ALL SUBSTITUTIONS MUST BE AUTHORIZED BY THE OWNER OR THE OWNER'S REPRESENTATIVE IN WRITING PROVIDING FOR USE OF THE NEAREST EQUIVALENT OBTAINABLE SIZE AND VARIETY OF PLANT HAVING THE SAME ESSENTIAL CHARACTERISTICS AS THE SPECIFIED VARIETY WITH AN EQUITABLE ADJUSTMENT OF CONTRACT PRICE.
 - (5.4) BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD. BURLAP SHALL NOT BE PULLED OUT FROM UNDER BALLS DURING PLANTING OPERATIONS. B&B PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL, MULCH, OR OTHER MATERIAL TO PROVIDE PROTECTION FROM DRYING WINDS AND SUN.
 - (5.5) PLANTS NOTED WITH A CONTAINER SIZE ON THE PLANT LIST MUST BE CONTAINER GROWN WITH WELL ESTABLISHED ROOT SYSTEMS. LOOSE CONTAINERIZED PLANT MATERIAL WILL NOT BE ACCEPTED. ALL PLANTS INJURED AND PLANTS WITH ROOT BALLS BROKEN DURING TRANSPORT OR PLANTING OPERATIONS WILL BE REJECTED. BARE-ROOTED PLANTS (BR) SHALL BE PLANTED OR WHEELED IMMEDIATELY UPON DELIVERY. ALL PLANTS SHALL BE WATERED AS NECESSARY UNTIL PLANTED.
 - (5.6) NEW PLANTINGS SHALL BE LOCATED WHERE SHOWN ON THE PLAN EXCEPT WHERE OBSTRUCTIONS BELOW GROUND ARE ENCOUNTERED OR WHERE CHANGES HAVE BEEN MADE IN THE PROPOSED CONSTRUCTION. NECESSARY ADJUSTMENTS SHALL BE MADE ONLY AFTER APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE. REASONABLE CARE SHALL BE EXERCISED TO HAVE PLANTING PITS DUG AND SOIL PREPARED PRIOR TO MOVING PLANTS TO THEIR RESPECTIVE LOCATIONS TO ENSURE THAT THEY WILL NOT BE UNNECESSARILY EXPOSED TO DRYING OR PHYSICAL DAMAGE.
 - (5.7) A LIST OF PLANTS, INCLUDING SIZES, QUANTITIES AND OTHER REQUIREMENTS, IS SHOWN ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE QUANTITIES AS SHOWN ON THE DRAWINGS. IF DISCREPANCIES OCCUR IN THE QUANTITIES SHOWN, THE PLANTING PLANS SHALL GOVERN.

(5.8) THE PLANTING CONTRACTOR WILL BE NOTIFIED BY THE GENERAL CONTRACTOR WHEN OTHER DIVISIONS OF THE WORK HAVE PROGRESSED SUFFICIENTLY TO COMMENCE WORK ON THE PLANTING OPERATION. THEREAFTER, PLANTING OPERATIONS SHALL BE CONDUCTED UNDER FAVORABLE WEATHER CONDITIONS DURING THE NEXT SEASON OR SEASONS WHICH ARE NORMAL FOR SUCH WORK. REMOVAL OF ROCK OR OTHER UNDERGROUND OBSTRUCTIONS, RELOCATIONS TO AVOID OBSTRUCTIONS, AND PROVISION OF DRAINAGE FOR PLANTING AREAS SHALL BE DONE ONLY AS APPROVED BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

(5.9) ALL PLANTS SHALL BE PLANTED UPRIGHT AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT STRUCTURES. ROOTS SHALL BE SPREAD IN THEIR NORMAL POSITION. ALL BROKEN OR FRADED ROOTS SHALL BE CUT OFF CLEANLY. PLANTS WITH CIRCLING ROOTS SHALL NOT BE ACCEPTED. BURLAP TWINE AND OTHER FASTENING MATERIAL SHALL BE CUT AND PUSHED TO THE BOTTOM OF THE PLANT PIT PRIOR TO BACKFILL MATERIAL BEING PLACED. THE PLANT SHALL NOT BE ROCKED BACK AND FORTH TO ENTIRELY REMOVE THE WRAPPING MATERIAL NOR SHALL ANY OTHER PRACTICE BE PERFORMED WHICH COULD CAUSE THE ROOT BALL TO BREAK APART. WHEN WIRE BASKETS ARE USED ON THE ROOT BALL OF PLANTS THE WIRE SHALL BE REMOVED FROM THE SIDES OF THE ROOT BALL.

(5.10) AT THE TIME OF PLANTING, AND AS MANY TIMES LATER AS SEASONAL CONDITIONS REQUIRE, EACH PLANT AND THE SOIL AROUND IT SHALL BE THOROUGHLY WATERED. CARE SHOULD BE EXERCISED WHEN WATERING TO AVOID FLOODING OF PLANTS AND BEDS, DISPLACEMENT OF MULCH MATERIAL AND EROSION OF SOIL. AVOID USE OF HIGH PRESSURE HOSES. THE CONTRACTOR SHALL MAKE, AT HIS EXPENSE, WHATEVER ARRANGEMENTS MAY BE NECESSARY TO ENSURE AN ADEQUATE SUPPLY OF WATER TO MEET THE NEEDS OF THIS CONTRACT DURING INSTALLATION. THE CONTRACTOR SHALL ALSO FURNISH ALL NECESSARY HOSE, EQUIPMENT ATTACHMENTS AND ACCESSORIES FOR THE ADEQUATE WATERING OF PLANTED AREAS AS MAY BE REQUIRED UNTIL ACCEPTANCE BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

(5.11) MULCH SHALL BE CLEAN, SHREDDED HARDWOOD MULCH. IN PLANTING AREAS WHERE SLOPES EXCEED 3:1 AND AT DRAINAGE DISPERSION POINTS OR ALONG NATURAL WATER WAYS WHERE CONCENTRATIONS OF SURFACE WATER EMPTY FROM CULVERTS OR PAVED DITCHES, HEAVY JUTE MESH SHALL BE INSTALLED. SHREDDED HARDWOOD SHALL HAVE BEEN COMPOSTED FOR AT LEAST TWO MONTHS PRIOR TO APPLICATION. FRESHLY GROUND MULCH WILL NOT BE ACCEPTED. FINELY GROUND MULCH, WHICH INHIBITS DRAINAGE, ENCOURAGES WEED GROWTH OR BECOMES WATERLOGGED WILL NOT BE ACCEPTED. MULCH SHALL BE COMPOSED OF SIMILAR SIZED FRAGMENTS AND SHALL NOT CONTAIN STICKS, CONES, LEAVES, SHREDDED PIECES, OR OTHER DELETERIOUS MATTER.

(5.12) ALL PLANTS SHALL BE MULCHED IMMEDIATELY AFTER PLANTING. GROUND COVERS SHALL BE MULCHED WITH A 3" LAYER OF SHREDDED HARDWOOD. ALL OTHER PLANTING BEDS, SHRUBS AND TREE PLANTINGS SHALL BE MULCHED WITH A 3" MINIMUM LAYER OF MULCH. THIS MULCH SHALL ENTIRELY COVER THE AREA OF THE PLANTING PIT, BED, OR EARTH BERM AROUND EACH PLANT WITH THE EXCEPTION OF THE AREA IMMEDIATELY ADJACENT TO THE PLANT TRUNK OR TRUNKS. THE AREA IMMEDIATELY ADJACENT TO THE PLANT TRUNK OR TRUNKS SHALL BE LEFT FREE OF ANY MULCH.

(5.13) INSPECT ROOT SYSTEM FOR POTENTIAL STEM GIRDLING ROOTS. DEFECTIVE ROOTS (J ROOTS, DIVING OR CIRCLING) SHALL BE PRUNED AWAY BACK TO LIVE TISSUE BEFORE/AHEAD OF THE ROOT DEFECT. 80% OR MORE OF ROOT SYSTEM IS DEFECTIVE (AS DETERMINED BY INDEPENDENT WEL-CERTIFIED HORTICULTURIST OR LANDSCAPE ARCHITECT) OR IF GIRDLING ROOTS ARE NOTED AFTER PLANTING, THE ENTIRE TREE SHALL BE REJECTED.

(5.14) SOIL COVERING ROOT STOCK GRAFT OR ON TOP OF THE ROOTBALL SHALL BE REMOVED SO THAT THE TRUNK FLARE AND THE TOP OF THE ROOT SYSTEM ARE CLEARLY VISIBLE. IF MORE THAN 2" OF SOIL WOULD NEED TO BE REMOVED TO EXPOSE TRUNK FLARE, TREE SHALL BE REJECTED. SET THE BASE OF THE TRUNK FLARE 1" HIGHER THAN FINAL GRADE, PARTICULARLY IN SLOWLY DRAINING SOILS.

(6) FERTILIZING

- (6.1) THE FERTILIZER SHOULD BE A DRY SLOW RELEASE FORM OF FERTILIZER. IT SHOULD CONTAIN AT LEAST 25-50% WATER INSOLUBLE NITROGEN. THE FERTILIZER SELECTED SHOULD ALSO HAVE A LOW ADJUSTED SALT INDEX TO PREVENT BURNING. THE N-P-K RATIO SHOULD NOT EXCEED 3-1-2 UNLESS THE SOIL TEST REVEALS THAT ADDITIONAL LEVELS OF P AND K ARE NECESSARY.
- (6.2) FOR DECIDUOUS AND EVERGREEN TREES, USE AMENDMENTS AS RECOMMENDED BY SOIL TESTING LABORATORY.
- (6.3) MIX THE FERTILIZER INTO THE BACKFILL SOIL OF THE TREE PITS. FOR SHRUB BEDS, MIX THE FERTILIZER INTO THE AREA THAT HAS BEEN ROTO-TILLED FOR THE PLANTS.
- (6.4) THE FERTILIZER RATE FOR CONTINUOUS GROUND COVER AND SHRUB BEDS SHOULD BE DERIVED BY CALCULATING THE ENTIRE ROOT ZONE AREA. THE ROOT ZONE AREA IS FOUND BY MEASURING THE AREA CONTAINING THE MULTIPLE PLANT ROOTS. FERTILIZER SHALL BE AS RECOMMENDED BY SOIL TESTING LAB REPORT. THE FERTILIZER SHOULD BE EVENLY DISTRIBUTED WITHIN THE SHRUB BED SOIL.
- (6.5) ALWAYS BE SURE THAT ADEQUATE MOISTURE IS AVAILABLE WHEN FERTILIZING SO THAT THE FERTILIZER WILL BE DISSOLVED INTO THE SOIL SOLUTION FOR ROOT UPTAKE AND TO AVOID BURNING THE ROOTS.

(7) ANCHORING

- (7.1) ANCHOR TREES, AS REQUIRED BY SITE CONDITIONS ONLY, TO MAINTAIN TRUNKS PLUMB AND UNTIL THE TREES ARE ROOTED, AND SELF SUPPORTING. ALL TREES REQUIRING SUPPORT SHALL BE ANCHORED ACCORDING TO THE NOTES BELOW.
- (7.2) THREE ANCHORS SHALL BE PROVIDED PER TREE. INSTALL IN SUCH A MANNER AS NOT TO INJURE THE ROOT BALL OR ROOTS.
- (7.3) ALL ANCHORING MATERIAL SHALL BE REMOVED AS SOON AS THE TREE HAS SUFFICIENT ROOTS TO NO LONGER REQUIRE ANCHORS. TREES THAT REMAIN UNSTABLE WITHOUT ANCHORING AFTER ONE YEAR SHALL BE REJECTED AND REPLACED.

(8) CHEMICAL APPLICATION

- (8.1) PESTICIDES SHOULD BE USED ONLY WHEN NECESSARY TO TREAT AN OUTBREAK OF A HARMFUL PEST OR DISEASE PROBLEM. THE OWNER OR THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED 24 HOURS PRIOR TO THE APPLICATION OF ANY PESTICIDE.
- (8.2) ALL PESTICIDES SHALL BE PRODUCTS OF RECOGNIZED COMMERCIAL MANUFACTURERS, AND SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL PESTICIDE LAWS. PESTICIDES SHALL BE APPLIED WITH CALIBRATED EQUIPMENT ACCORDING TO EPA LABEL RESTRICTIONS AND REGULATIONS BY A CERTIFIED APPLICATOR. ANY DAMAGE INCURRED TO THE SITE, ADJACENT PROPERTIES, OR APPLICATOR DURING PESTICIDE APPLICATIONS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

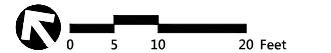
(9) MAINTENANCE AND GUARANTEE

- (9.1) THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING HIS WORK UNTIL FINAL ACCEPTANCE BY THE OWNER OR THE OWNER'S REPRESENTATIVE. MAINTENANCE SHALL INCLUDE MOWING, WATERING, WEEDING, CULTIVATING, MULCHING, REMOVAL OF DEAD MATERIALS, RESETTING OF PLANTS TO PROPER GRADES OR UPRIGHT POSITIONS, RESTORATION OF EARTH BERMS, AND OTHER NECESSARY OPERATIONS. ADEQUATE PROTECTION FOR LAWN AREAS AGAINST TRESPASSING DURING PLANTING OPERATIONS AND AGAINST DAMAGE OF ANY KIND SHALL BE PROVIDED. NOTHING IN THESE NOTES IS INTENDED TO RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO REPAIR EXISTING LAWN AREAS DAMAGED BY WORKMEN ENGAGED IN THE COMPLETION OF THIS PROJECT.
- (9.2) INSPECTION OF THE WORK TO DETERMINE COMPLETION OF THE CONTRACT EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTINGS, WILL BE MADE BY THE OWNER OR THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF THE INSTALLATION PERIOD UPON WRITTEN NOTICE REQUESTING SUCH INSPECTION. REQUEST SHALL BE SUBMITTED BY CONTRACTOR AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED DATE FOR INSPECTION. AFTER INSPECTION, THE CONTRACTOR WILL BE NOTIFIED IN WRITING BY THE OWNER OR THE OWNER'S REPRESENTATIVE OF ACCEPTANCE OF THE WORK, EXCLUSIVE OF THE POSSIBLE REPLACEMENT OF PLANTS SUBJECT TO GUARANTEE. OR, IF THERE ARE ANY DEFICIENCIES, THE CONTRACTOR WILL BE NOTIFIED OF THE REQUIREMENTS NECESSARY FOR COMPLETION OF THE WORK. PLANTINGS SHALL NOT BE CONSIDERED ACCEPTED UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED AND APPROVED IN WRITING.

(10) ALL OTHER ITEMS NECESSARY TO MAKE WORK COMPLETE

- (10.1) ANY PLANT MATERIAL, NOT PLANTED SHALL BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNUSED MATERIALS, RUBBISH AND DEBRIS FROM THE SITE UPON COMPLETION OF HIS WORK.
- (10.2) WASTE MATERIAL SHALL BE REMOVED FROM THE SITE DAILY.
- (10.3) KEEP PAVEMENTS CLEAN AND WORK AREA IN AN ORDERLY CONDITION AT ALL TIMES.
- (10.4) PROTECT SEEDED AREAS AND MATERIALS FROM DAMAGE DUE TO OPERATIONS BY OTHER CONTRACTORS, TRADES, AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND UNTIL FINAL ACCEPTANCE. TREAT, REPAIR OR REPLACE DAMAGED SEEDED AREAS AS DIRECTED.

(10.5) FINAL ACCEPTANCE WILL BE GIVEN BY THE OWNER OR THE OWNER'S REPRESENTATIVE UPON SATISFACTORY COMPLETION OF ALL WORK INCLUDING "PUNCH LIST" ITEMS.

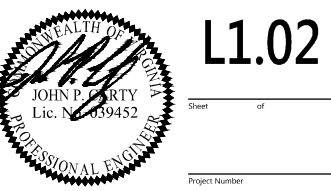


Maggie Lena Walker Memorial and Plaza
98 West Broad Street
Richmond, Virginia

No.	Revision	Date	Appvd.

Designed by	Checked by
Issued for	Date
	June 16, 2016

Drawing Title
Planting Notes and Details



Maggie Lena Walker Memorial Design





Maggie Lena Walker Memorial

Maggie L. Walker Memorial Design

Public Art Commission





Maggie Lena Walker Memorial Design

Maggie L. Walker Memorial Design

Public Art Commission





View from Brook Road

Maggie L. Walker Memorial Design

Public Art Commission





Brook Road Curb Lines Maintained

Recognition of Historic Brook Road

Maggie L. Walker Memorial Design

Public Art Commission







Sculpture Plaza

Maggie L. Walker Memorial Design

Public Art Commission





Preserving Open View from Broad Street

Maggie L. Walker Memorial Design

Public Art Commission





Seating Orientation & Dedication Wall

Maggie L. Walker Memorial Design

Public Art Commission





View from W Broad Street

Broad Street Crosswalk

Maggie L. Walker Memorial Design

Public Art Commission





View from N Adams Street

Adams Street Crosswalk

Maggie L. Walker Memorial Design

Public Art Commission





Brook Road Curb Lines Maintained

Maggie L. Walker Memorial Design

Public Art Commission



Quercus phellos

Willow Oak

Shape: pyramidal to oval

Foliage: dark green, narrowly elliptical leaf

Fall color: yellow, bronze-orange

Bark: gray, irregular furrows

Size: 60' Ht., 35' Spd.



Gleditsia triacanthos var. *inermis* 'Shademaster'

Shademaster Honeylocust

Shape: open spreading crown

Foliage: bright green, pinnately compound leaf

Fall color: yellow

Bark: grayish brown, scaly ridges & deep furrows

Size: 60' Ht., 35' Spd.



Proposed Tree Species
Willow Oak, Shademaster Honeylocust
Maggie L. Walker Memorial Design

Public Art Commission



Abelia x grandiflora 'Little Richard'
Little Richard Abelia

Pennisetum alopecuroides 'Hameln'
Hameln Dwarf Fountain Grass

Liriope muscari 'Big Blue'
Big Blue Liriope



Little Richard Abelia



Big Blue Liriope



Dwarf Fountain Grass



Proposed Shrub & Groundcover Species

Maggie L. Walker Memorial Design

Public Art Commission

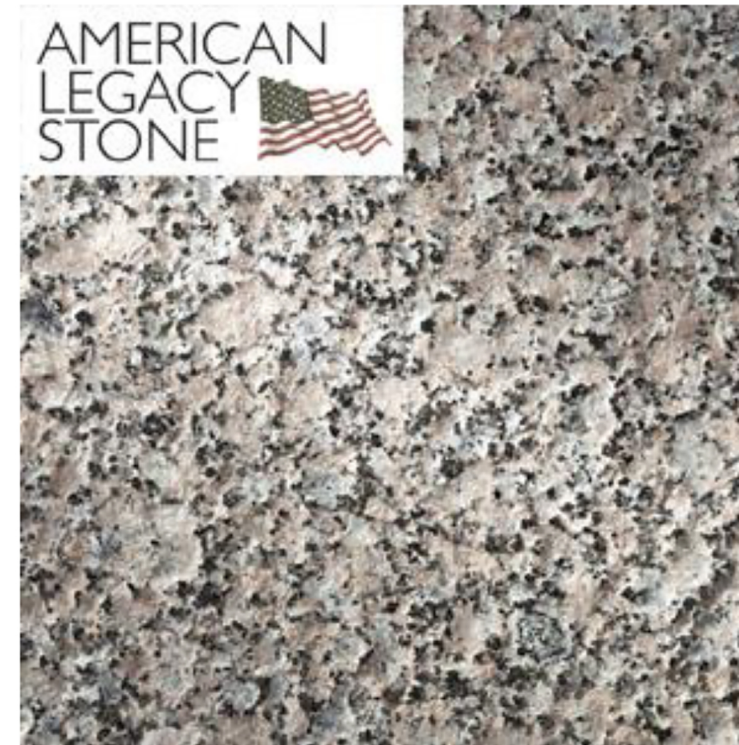




**Mountain Green
Benches, Walls,
Sculpture Pedestal**



**Mesabi Black
Engraved Accent
Paving Band**



**Sunset Beige
Tumbled Granite
Cobbles over Historic
Brook Road**



**Charcoal Black
Granite Paving in
Memorial Plaza**

Granite Paving, Benches & Walls

Coldspring Granite

Maggie L. Walker Memorial Design

Public Art Commission





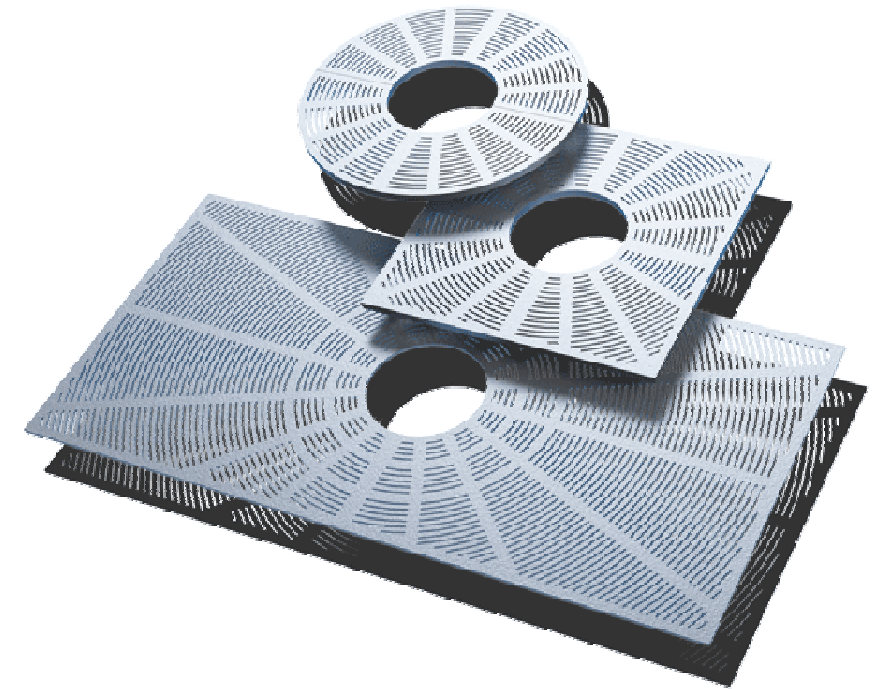
**Landscape Forms 'Austin'
Backless Bench**



**Landscape Forms 'Austin'
Bench w/ Back**



**Landscape Forms 'Austin'
Trash Receptacle**



**Ironsmith 'Olympian'
Cast Iron Tree Grate**

Site Furnishings

Maggie L. Walker Memorial Design

Public Art Commission



CHARLESTON

1229BP - 1229C5 - 1229R3 - 1230BP
1237BP - 1237C5 - 1237R3 - 1238BP

Sitescape

SITE • ROADWAY • AREA LIGHTING

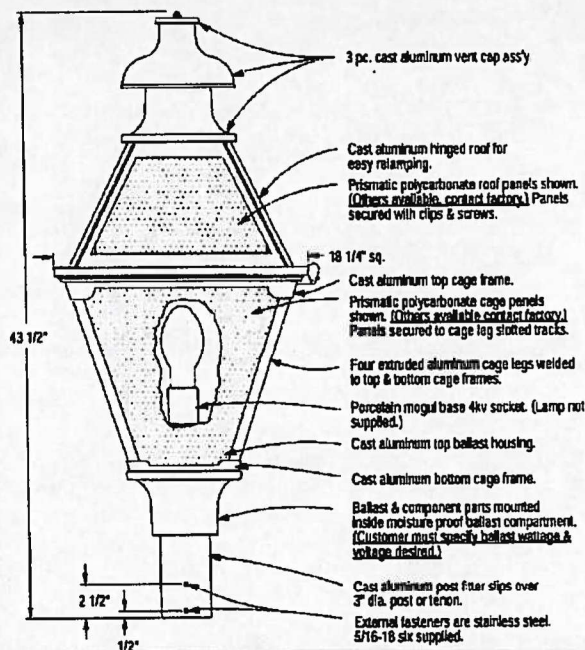
FIXTURE SELECTION

	GLASS REFRACTORS AVAILABLE 6" TYPE III OR V 8" TYPE I OR V		CONE OPTIC REFLECTOR SYSTEM TYPE V		ROOF MOUNTED REFLECTOR SYSTEM TYPE II		GLASS REFRACTORS AVAILABLE 6" TYPE III OR V 8" TYPE I OR V	
	SOLID ROOF		SOLID ROOF		SOLID ROOF		OPEN ROOF	
TOP VIEW								
HEIGHT:	43 1/2"	44 1/2"	43 1/2"	44 1/2"	43 1/2"	44 1/2"	43 1/2"	44 1/2"
WIDTH:	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"
FITTER DIA:	3" I.D.	3" I.D.	3" I.D.	3" I.D.	3" I.D.	3" I.D.	3" I.D.	3" I.D.
FIXTURE NO.	1229BP	1237BP	1229C5	1237C5	1229R3	1237R3	1230BP	1238BP
MAX. WATTS - INC.	250w	250w	250w	250w	250w	250w	250w	250w
M.V.	175w	175w	175w	175w	175w	175w	175w	175w
H.P.S.	150w	150w	150w	150w	150w	150w	150w	150w
M.H.	175w	175w	175w	175w	175w	175w	175w	175w
E.P.A.	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26

SPECIFICATIONS

MODEL No. shown 1229BP

E.P.A. - 3.26
Max. Wt. 46 lbs

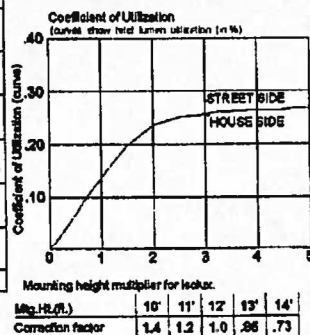
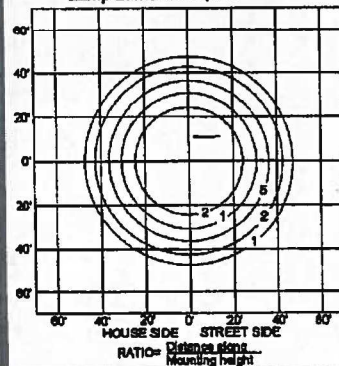


PHOTOMETRIC DATA

Symmetric Distribution

Fixture: 1237C5
Lamp: 150w H.P.S.
Lamp Lumens: 16,000

Optics: Type V Cone
Mounting Height: 12'
Panels: Clear polycarbonate



FEATURES

SOURCES: (factory installed, prewired and tested).

INC. (incandescent) 250 watt max.
MV (mercury vapor) 50-75-100-175-250 watt.
S (high pressure sodium) 35-50-70-100-150-250 watt.
MH (metal halide) 70-100-175-250 watt.

FINISHES:

All Hanover Lantern finishes available, see page 3 for selection.

PANELS:

CA-Clear acrylic.
CP-Clear polycarbonate, UV stabilized.
OA-Opal acrylic.
OP-Opal polycarbonate, UV stabilized.
PP-Prismatic polycarbonate, UV stabilized.

VOLTAGES:

120-208-240-277-QUAD (contact factory for availability)

REFRACTORS:

No. 81-6" borosilicate glass, type V distribution.
No. 82-6" borosilicate glass, type III distribution.
No. 83-8" borosilicate glass, type V distribution.
No. 84-8" borosilicate glass, type II distribution.

PHOTO CONTROL: (optional) factory installed.

No. 10-120 volt only.
No. 11-208 to 277 volt. (Must be installed in post only).

ORDERING GUIDE

To ensure prompt and efficient processing of your order, please follow the sequence listed in the example below.

① SOURCE:

INC.-incandescent
MV-mercury vapor
S-high pressure sodium
MH-metal halide

② MODEL NO.:

1229BP 1237BP
1229C5 1237C5
1229R3 1237R3
1230BP 1238BP

③ FINISH:

See page 3 for selection.

④ PANELS:

CA-Clear acrylic
CP-Clear polycarbonate
OA-Opal acrylic
OP-Opal polycarbonate
PP-Prismatic polycarbonate

⑤ WATTAGE:

MV-50-75-100-175-250
S-35-50-70-100-150-250
MH-70-100-175-250

⑥ VOLTAGE

120v.-208v.-240v.-277v.

⑦ REFRACTORS: (optional)

81-6" glass type V
82-6" glass type III
83-8" glass type V
84-8" glass type II

⑧ PHOTO CONTROL: (optional)

10-120 volt only.
11-208/277 volt.

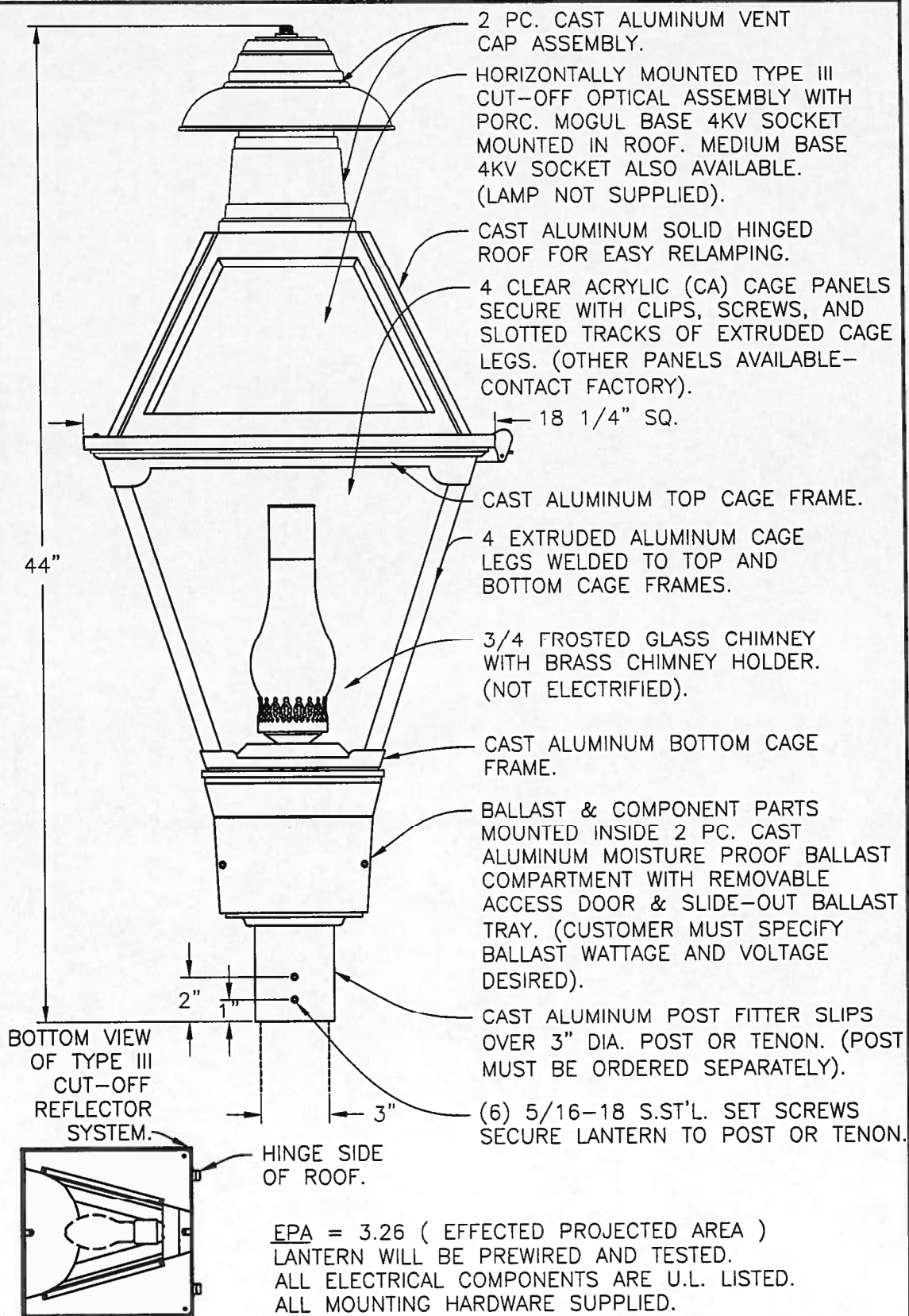
① S ② 1229R3 ③ BLK ④ CP ⑤ 150 ⑥ 240 ⑦ 82

For post selection, see pages P-1 to P-10.
Accessories selection, see pages A-1 to A-5.

Hanover
LANTERN, Inc.

340 BIRCH LANE • MILLIS, MA 01947-1122
TEL 781 344-1010 FAX 781 344-1021

Pedestrian Level Light Fixture
City Standard - Hanover Lantern



Drawing for illustration only - scale approximate

APPROVAL SIGNATURE:		FINISH:	<input type="checkbox"/> Mercury Vapor <input type="checkbox"/> Metal Halide <input type="checkbox"/> High Pressure Sodium		 300 HANOVER LANE HANOVER PA 17331 PH (717) 638-4444 - FAX (717) 638-0101	TITLE:	
HEIGHT	44"	PANELS:	WATTAGE:			"CHARLESTON"	
WIDTH	18 1/4"	SOCKET:	VOLTAGE:			1200 SERIES H.I.D.	
PROJECTION		<input type="checkbox"/> MEDIUM <input type="checkbox"/> MOGUL	POWER FACTOR: <input type="checkbox"/> NPF <input type="checkbox"/> HPF			POST TOP LANTERN	
TOP TO OUTLET				SCALE:	DATE:	DWG BY:	DWG. NO.
				1=4	04/01/04	ATV	L49561

SUPERLIGHT 150W

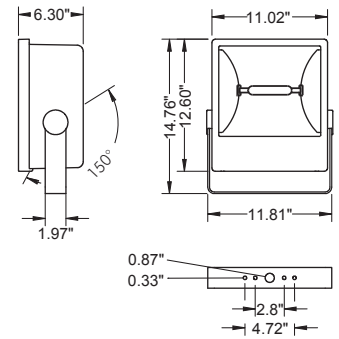
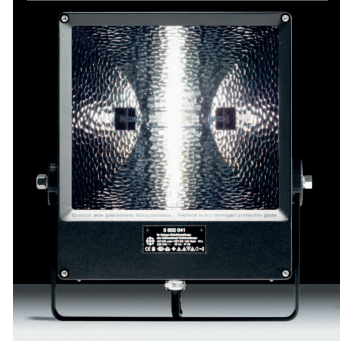
AXIALLY SYMMETRICAL WIDE BEAM

Superlight 150 W

Axially symmetrical wide beam

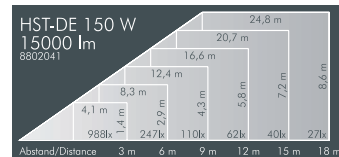
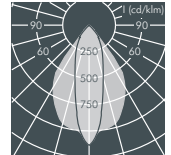
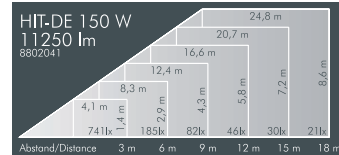
For metal halide lamps (HIT-DE), ceramic metal halide lamps (HIT-DE-CE) and high pressure sodium lamps (HST-DE), IP65, IK10 windage area AW 0.09 m², die cast aluminum housing, polyester powder coated, axially symmetrical high gloss aluminum reflector, all exterior steel parts are stainless steel, tempered safety glass, silicon gasket, closure with 4 stainless steel screws, hinged front frame, mounting bracket powder coated aluminum with tilt scale: 4 drilled holes Ø 0.33", spacing 2.76" (4.72"), 1 centre hole Ø 0.67", tilt range 150°, M20 cable gland, integral LPF ballast and ignitor or LED driver, HPF available on request, supplied without lamp

Statue Spot Lighting
Pole Mounted
City Standard



Superlight 150 W, axially symmetrical wide beam

Part number	Color	Lamp	Lampholder	Weight	Half beam angle γ	
					C 0 – 180	C 90 – 270
M8 802 041 009	black	HIT-DE 150 W HIT-DE-CE 150 W HST-DE 150 W	Rx7s	17.42 lbs	27°	68°



Job Name:

Fixture Type:

Last Modified:



Rated IP65

designplan 

sales@designplan.com
www.designplan.com

LED INGROUND LIGHT (XIG)



DOE LIGHTING FACTS

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

LIGHT OUTPUT - XIG				
	# of LEDs	Lumens (Nominal)		
		SP10	NFL25	FL40
Cool White	350 mA	2159	2076	2066
	Watts	22	23	22
Warm White	350 mA	1445	1485	1347
	Watts	22	23	22

LED Chips are frequently updated therefore values may increase.

US patent 8,152,334 and US & Int'l. patents pending

EXPECTED LIFE - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

LEDS - Select high-brightness LEDs in Cool White (5000K) or Warm White (3500K) color temperature. 68CRI

DRIVER CURRENT - Available in 350mA

OPTICS / AIMING - Available with 10°, spot, 25° or 40° flood horizontal beam angle distributions. Optics can be tilted +/- 15° from vertical via external aiming screw, with tamper-resistant spanner tool. Adjustment tool provided.

HOUSING - Composite rough-in housing never corrodes; field-proven to last for more than 20 years without maintenance. Luminaire housing is 85% copper alloy for wet locations or aluminum for damp/ dry locations. CNC precision machined to insure proper sealing.

DRIVER OVER CAPABILITY - 4,000 lbs. vehicle weight.

OPTICAL UNIT - 15mm low-iron tempered glass lens does not change color of light emitted. 19mm thick lens supplied with stainless steel trim option to retain flush surface. Sealed optical chamber is aimable from outside the unit to ensure integrity of the seal. No heat in the LED light beam means a cool lens - no risk of burns to bare feet. Optional slip resistant lens available, to enhance public safety.

INSTALLATION - Rough-in housing can be shipped ahead for pre-casting in concrete. Luminaire connects to field wiring via IP-68 rated connector.

ELECTRICAL - Universal frequency input (120-277V, 50/60 Hz). Surge protection meets ANSI C62.41.2, Scenario 1, Location Category C-low standards (6,000; 3,000A)

DRIVER - State-of-the-art driver technology specifically designed for LSI LED fixtures provides unsurpassed system efficiency.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Clear-anodized natural aluminum finish or LSI's DuraGrip® polyester powder coat finishes available. DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for a full five years. Standard colors include black, white, bronze, metallic silver, graphite and satin verde green. Natural brass matte blast finished.

TRIM - Optional 11" diameter x .18" thick stainless steel decorative trim has radial polish finish.

WARRANTY - LSI LED fixtures carry a limited 5 year warranty.

PHOTOMETRICS - Please visit our web site at www.lsi-industries.com for detailed photometric data.

SHIPPING WEIGHT - XIGB - 28 lbs., XIGA - 14 lbs.

LISTING - Listed to U.S. and Canadian safety standards. Suitable for wet locations.

THOMAS HARRIS & CO.,INC
8505 BELL CREEK RD., SUITE B
MECHANICSVILLE, VA 23116
804-730-3003

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.



Project Name MAGGIE LENA WALKER MEMORIAL AND PLAZA Fixture Type A
Catalog # XIG-B-LED-19-350-WW-UE-FL40-FINISH-SST

10/21/15
© 2015
LSI INDUSTRIES INC.

LED INGROUND LIGHT (XIG)

Tree Uplighting
Type A Fixture on Photometric Plan

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XIG A LED 19 350 CW UE SP10 WHT SST**

Prefix	Housing	Light Source	# of LEDs	Drive Current	Color Temperature	Input Voltage	Distribution	Finish	Options
XIG	B - Brass	LED	19	350 - 350 mA	CW - Cool White (5000K) WW - Warm White (3500K)	UE - Universal Electronic (120-277V 50/60 Hz)	SP10 - 10° Spot NFL25 - 25° Narrow Flood FL40 - 40° Flood	NB - Natural Brass ¹ NA - Natural Aluminum ² BRZ - Bronze BLK - Black WHT - White MSV - Metallic Silver GPT - Graphite SVG - Satin Verde Green	SST - Stainless Steel Trim^{3,4,6} TR - Tamper Resistant Fasteners DSA - Directional Shield Aluminum ^{5,6} DSB - Directional Shield Brass ⁶ RGA - Rock Guard Aluminum ^{5,6} RGB - Rock Guard Brass ⁶ SRL - Slip Resistant Lens
RIH									

NOTES:

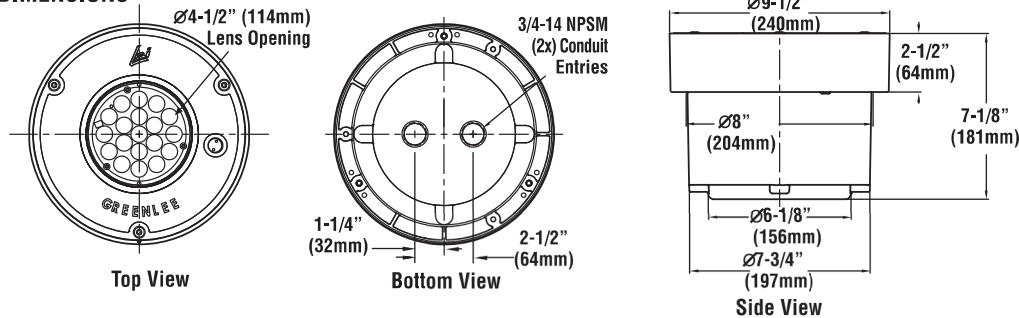
- 1- Brass Housing Only
- 2- Aluminum Housing Only
- 3- SST not available with DS or RG options
- 4- Aluminum housing painted BLK with SST. Brass housing NOT painted with SST.
- 5- DSA/RGA compatible with XIG A only.
- 6- XIG can NOT have DSB/A, RGB/A and SST at the same time. Only one.

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

TRKEY - Key for TR Fasteners

G34062

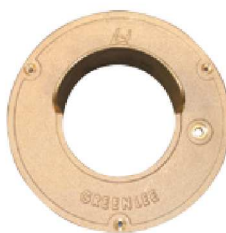
DIMENSIONS



OPTIONS



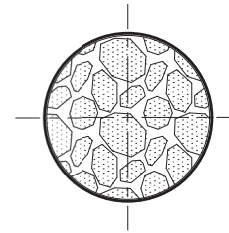
Rock Guard
(RGA/B)
Lens/Lamp Protection



Directional Shield
(DSA/B)
Increased Light Control



Stainless Steel Trim
(SST)
Decorative Appeal



Slip Resistant Lens
(SRL)
Enhance Public Safety

THOMAS HARRIS & CO., INC
8505 BELL CREEK RD., SUITE B
MECHANICSVILLE, VA 23116
804-730-3003



Project Name MAGGIE LENA WALKER MEMORIAL AND PLAZA

Fixture Type A

10/21/15

Catalog # XIG-B-LED-19-350-WW-UE-FL40-FINISH-SST

© 2015
LSI INDUSTRIES INC.

Flex LED Tape WP Installation Manual



Bench Lighting - Recessed at Base
Type B Fixture on Photometric Plan

SPECIFICATIONS

Average Rated Life: 30,000 hours

Operating Temperature: -40°C to 80°C



ELATION FLEX LED TAPE WP is a very thin and flexible LED circuit strip mounted inside a silicone water proof sleeve. It can be cut every 2" and put back together using simple soldering techniques and silicone seal kit. It comes available in RGB and Single Color versions. High output, low heat and easy installation make this product the ideal product for a variety of applications.

FLEX RGB WP+ TAPE SPECIFICATIONS

View Angle: 120°

Length: 3 meters / 9.8 feet

Width: 14 mm

Power Consumption: 43.2w

Voltage: DC12V

LEDs: 180 SMD

Wiring Diagram:

W	Power supply DC12V+
R	Red color LED DC12V-
G	Green color LED DC12V-
B	Blue color LED DC12V-

SINGLE COLOR TAPE SPECIFICATIONS

View Angle: 120°

Length: 6 meters / 20 feet

Width: 14 mm

Power Consumption: 28.8w

Voltage: DC12V

LEDs: 360 SMD

Wiring Diagram:

W	Power supply DC12V+
C	Color LED DC12V-

DMX Accessories



Flex RGB+ WP



Elar Driver-1



AL-150-12



Elar Driver-8



Flex PSU 4A

Flex LED Tape WP Installation Manual



Bench Lighting - Recessed at Base
Type B Fixture on Photometric Plan

PRODUCT ORDERING SPECIFICATIONS

Order Number	Description
Flex RGB WP+	10' roll RGB tape
Flex WW WP	20' roll warm white tape, 3000°k
Flex CW WP	20' roll cool white tape, 6000°k
Flex B WP	20' roll blue tape
Flex R WP	20' roll red tape
Flex G WP	20' roll green tape
Flex A WP	20' roll amber tape

DMX CONTROL OPTION ITEMS

Order Number	Description
ELAR Driver 1	3 channel DMX driver only
ELAR Driver 8 12 V	150W power supply and 32 channel DMX driver
ELAR PSU4A	50W power supply 4 amp
AL-150-12V	150W power supply 12.5 amp

ACCESSORIES

Order Number	Description
Flex Clip Kit	Mounting clips for WP tape
Flex IP Clip Kit	Silicon, end caps and 2 clips for WP tape

