ELEVATION NOTES

A. GENERAL CONTRACTOR SHALL VERIFY EXISTING GRADES AND COORDINATE ANY ADJUSTMENTS NECESSARY TO HOUSE WITH OWNER.

B. PLUMBING AND HVAC VENTS SHALL BE GROUPED IN ATTIC TO LIMIT ROOF PENETRATIONS TO BE LOCATED AWAY FROM PUBLIC VIEW, I.E. AT THE REAR OF THE HOUSE AND SHALL BE PRIMED AND PAINTED TO MATCH ROOF COLOR.

C. PROVIDE ATTIC VENTILATION PER LOCAL CODE REQUIREMENTS.

D. CONTRACTOR TO VERIFY FINAL DIMENSIONS FOR EXTERIOR TIMBER TRIM MEMBERS AND BRICK PATTERNS WITH THE ARCHITECT PRIOR TO CONSTRUCTION.

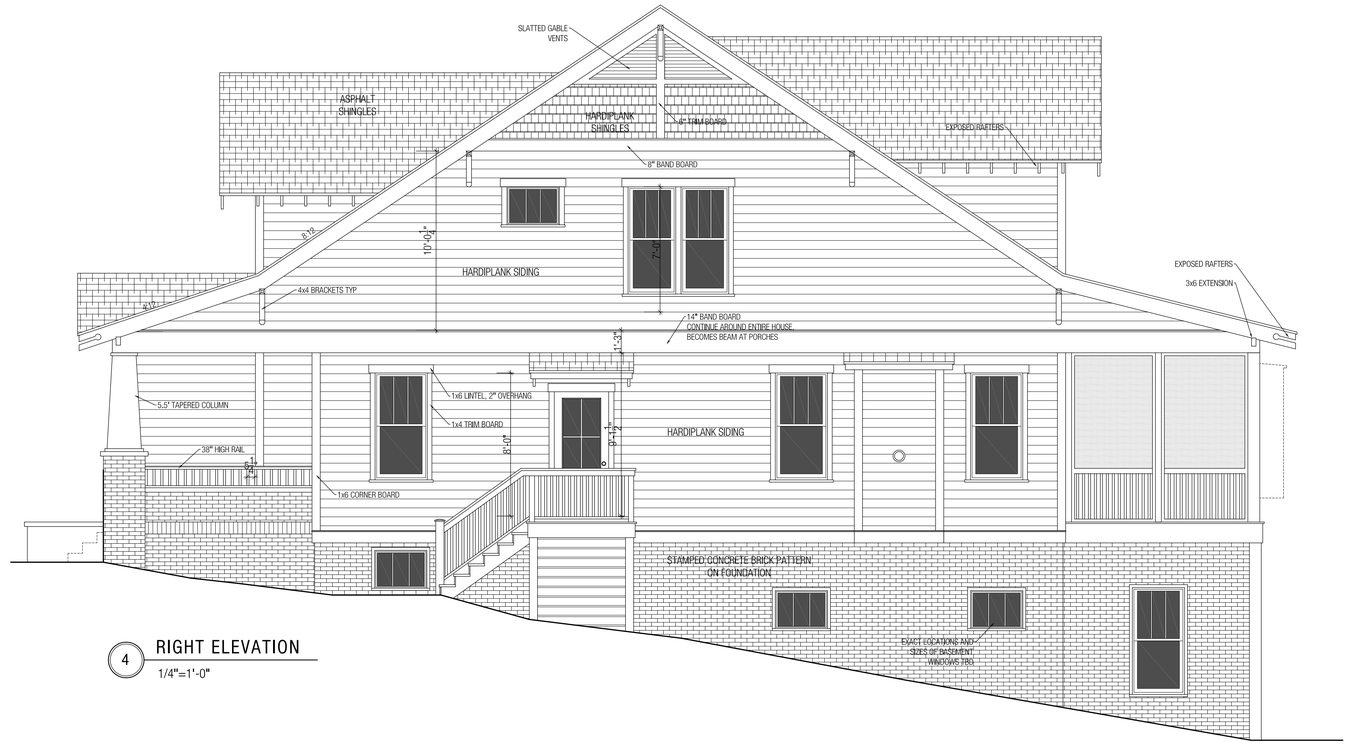
E. NOTE: THE GRADE LINE SHOWN ON PLANS, ELEVATIONS & DETAILS ARE FOR ILLUSTRATIVE PURPOSES ONLY & NOT AS AN ACCURATE REPRESENTATION OF THE ACTUAL SLOPE ON THE SUBJECT PROPERTY. THE FINAL GRADE WILL BE VERIFIED ON SITE & THE FOUNDATION WILL BE BUILT TO ACCOMMODATE THOSE CONDITIONS.

2 BACK ELEVATION
1/4"=1'-0"

3 LEFT ELEVATION
1/4"=1'-0"

PREVIOUSLY APPROVED ELEVATIONS

1 FRONT ELEVATION
1/4"=1'-0"



4 RIGHT ELEVATION
1/4"=1'-0"

HOMEPATTERNS crafted simplicity
30 Elm Place, Hastings on Hudson, NY 10706
(864) 278 0068 INFO@HOMEPATTERNS.COM

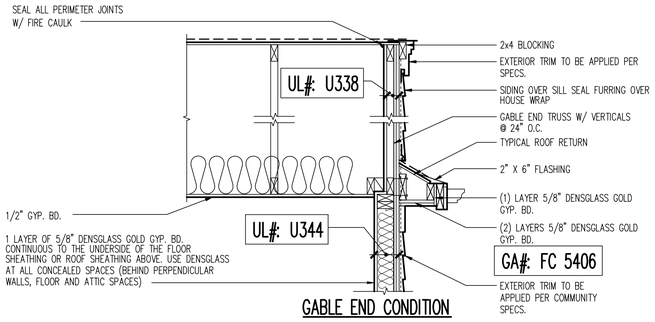
Revisions/Additions By Others:

Date of Issue: April 5, 2021

BUILDING CODE INFORMATION
Although Home Patterns LLC strives to create the most complete package available, it is impossible for Home Patterns LLC to, in good faith, guarantee that this plan will meet all local building requirements. Home Patterns LLC provides a house plan that strives to meet critical and common national building codes (International Residential Code 2012 One & Two Family Dwelling Code). Present and local building codes and zoning regulations may or may not be met with said drawings. Such regulations and laws may include insulating requirements, flood zone measures, seismic conditions, etc.. Some states, cities, or municipalities may require a professional's seal or stamp. The home plan buyer is responsible for working directly with a local professional for these services. Home Patterns LLC grants permission for all home plan buyers to consult with local architects, engineers, or builders to ensure local code compliance. Home Patterns LLC grants permission to alter plans but takes no responsibility for said alterations. Home Patterns LLC will make reasonable efforts to insure national code compliance, however the plan is sold as is with no guarantee of strict local code compliance. All structural determinations should be verified and/or made locally by trained professionals with experience of local and site specific conditions and codes.

License Use #21-038
DO NOT COPY
Licensed Location:
3205 23rd St.
N Arlington, VA 22201

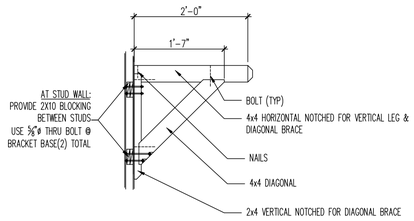
sheet no.
A2



GABLE END CONDITION

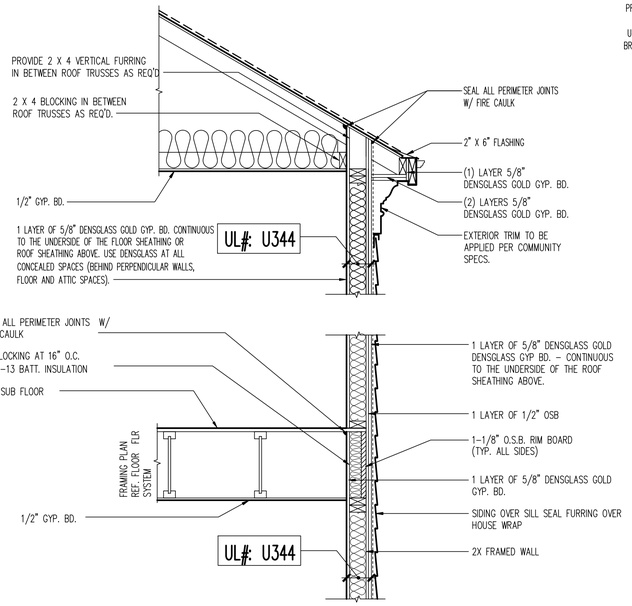
NOTE:

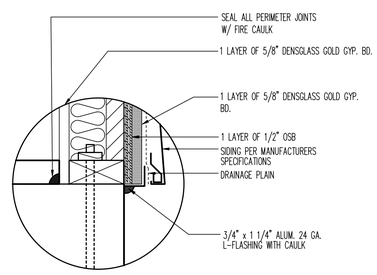
IN SELECTED LOCATIONS OF THE RATED CONSTRUCTION SHOWN ON THESE DRAWINGS, 5/8 INCH DENSGLASS GOLD IS BEING SUBSTITUTED FOR 5/8 INCH FIRE RATED GYPSUM BOARD. THIS SUBTITUTION IS APPROPRIATE AS REPORTED BY THE ICC EVALUATION SERVICE, INC. LEGACY REPORT NER-574 REISSUED NOVEMBER 1, 2005. A COPY OF THIS REPORT MAY BE FOUND AT HTTP://WWW.GP.COM/BUILD/DOCUMENTVIEWER.ASPX?REPOSITORY=BP&ELEMENTID=4584



3 BRACKET DETAIL

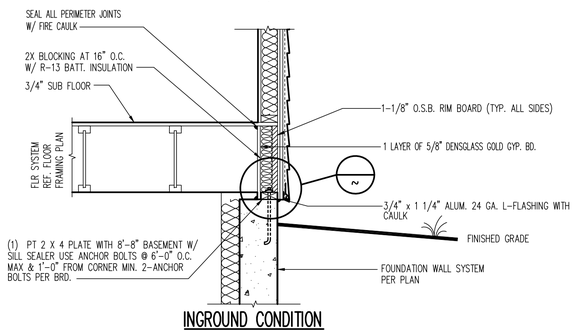
SCALE : 2 1/2" = 1'-0"



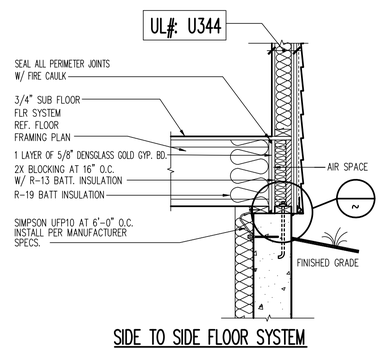


2 UL U344 (1-HOUR ASSEMBLY)

SCALE : 2 1/2" = 1'-0"



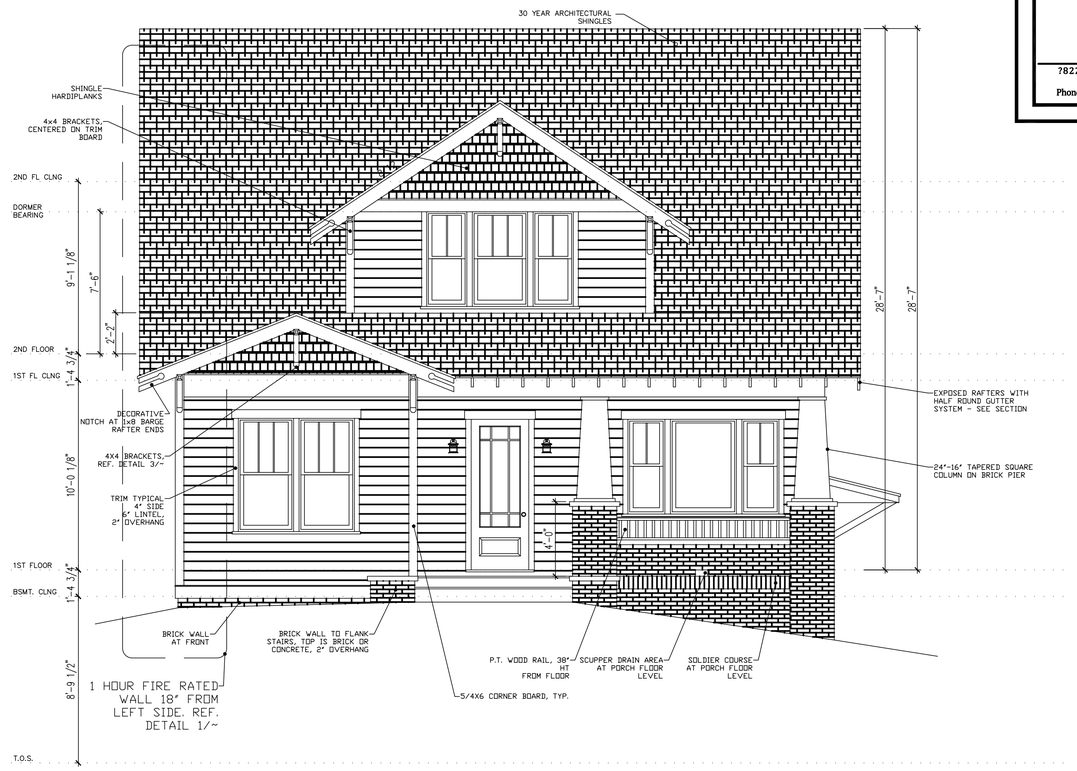
INGROUND CONDITION



SIDE TO SIDE FLOOR SYSTEM

1 UL U344 (1-HOUR ASSEMBLY)

SCALE : 3/4" = 1'-0"



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

MOMENT
DC • VIRGINIA • MD
78229 BOONE BOULEVARD, SUITE 410
VIENNA, VA 22182
Phone: 703.988.2350 • Email: info@mseglic.com

22x34 Plotted at 1/4"=1'-0" - 11x17 Plotted at 1/8" = 1'-0"

ALAIR HOMES - 3205 23RD ST N

FRONT ELEVATION

COMMONWEALTH OF VIRGINIA
SHAWN PATRICK KELLEY
Lic. No. 38524
PROFESSIONAL ENGINEER

DRAWN BY:	
MRD	
DATE:	02/14/22
REV No.	DATE
XXX	XX-XX-XX

22-100

SHEET No.
A4.1

RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

MOMENT
DC • VIRGINIA • MD
78229 BOONE BOULEVARD, SUITE 410
VIENNA, VA 22182
Phone: 703.988.2350 • Email: info@msegllc.com

22x34 Plotted at 1/4"=1'-0" - 11x17 Plotted at 1/8" = 1'-0"

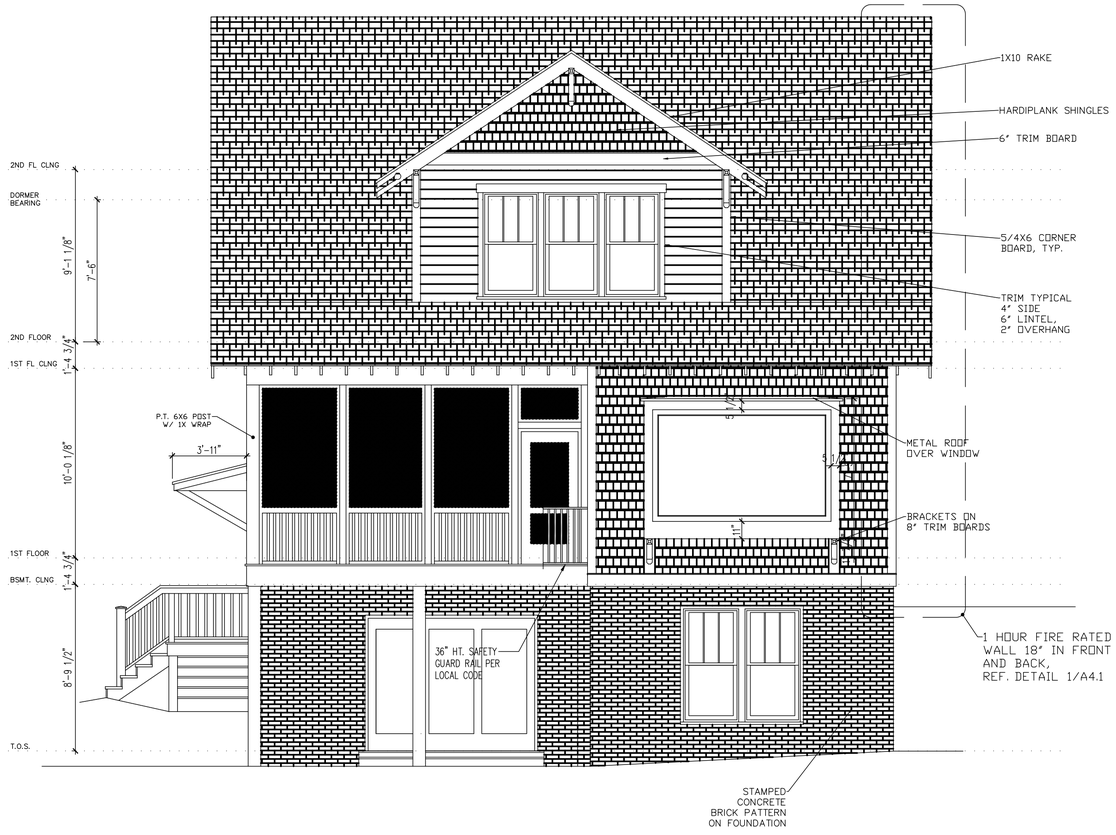
ALAIR HOMES - 3205 23RD ST N
RIGHT SIDE ELEVATION

COMMONWEALTH OF VIRGINIA
SHAWN-PATRICK KELLEY
Lic. No. 38524
PROFESSIONAL ENGINEER

DRAWN BY:	
MRD	
DATE:	02/14/22
REV No.	DATE
XXX	XX-XX-XX

22-100

SHEET No.
A4.2



REAR ELEVATION

SCALE: 1/4" = 1'-0"

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78229 BOONE BOULEVARD, SUITE 410
VIENNA, VA 22182
Phone: 703.988.2350 • Email: info@msegllc.com

22x34 Plotted at 1/4"=1'-0" – 11x17 Plotted at 1/8" = 1'-0"

ALAIR HOMES - 3205 23RD ST N

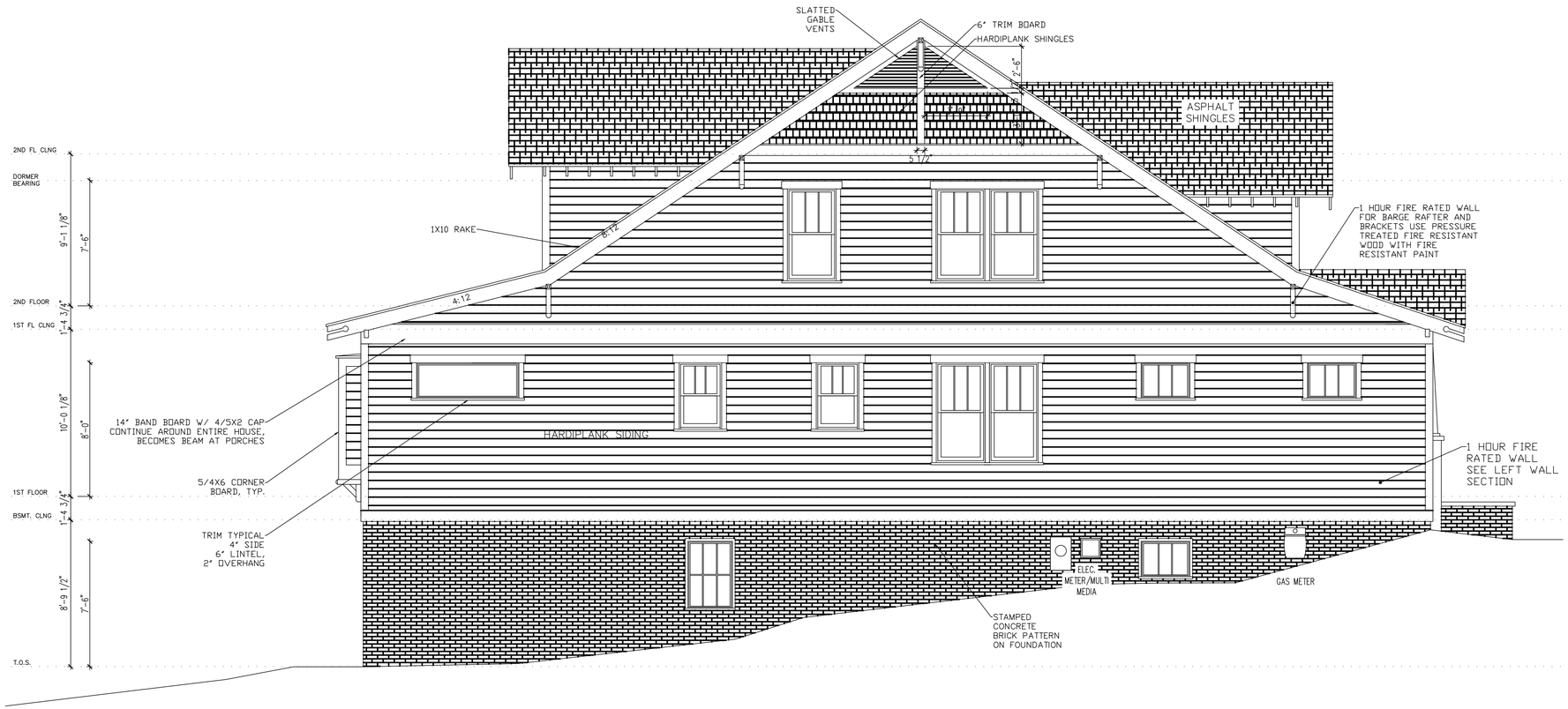
REAR ELEVATION

COMMONWEALTH OF VIRGINIA
SHAWN-PATRICK KELLEY
Lic. No. 38524
PROFESSIONAL ENGINEER

DRAWN BY:	
MRD	
DATE:	02/14/22
REV No.	DATE
XXX	XX-XX-XX

22-100

SHEET No.
A4.4



LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

Elevation Area Calculations
Total Area of Left Elevation: 1608 SF
Vents: 9.5 SF
Windows 2nd Floor: 49.7 SF
Windows 1st Floor: 82.1 SF
Windows Basement: 19.8 SF
Total Windows and Vents: 161.1 SF
Total Opening Percentage: 161.1 / 1608 = 10.0 %

MOMENT
DC • VIRGINIA • MD
78229 BOONE BOULEVARD, SUITE 410
VIENNA, VA 22182
Phone: 703.988.2350 • Email: info@mseglic.com

22x34 Plotted at 1/4"=1'-0" – 11x17 Plotted at 1/8" = 1'-0"

ALAIR HOMES - 3205 23RD ST N

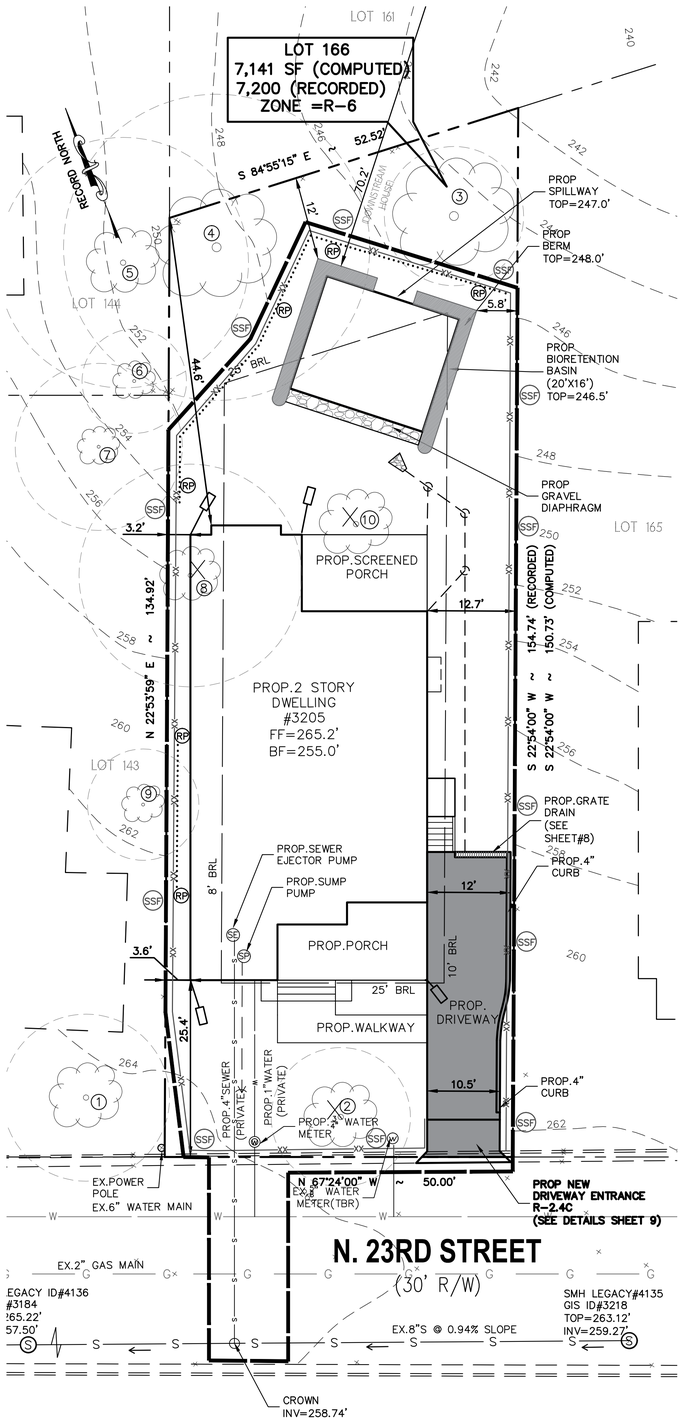
LEFT SIDE ELEVATION

COMMONWEALTH OF VIRGINIA
SHAWN-PATRICK KELLEY
Lic. No. 38524
PROFESSIONAL ENGINEER

DRAWN BY:	
MRD	
DATE:	02/14/22
REV No.	DATE
XXX	XX-XX-XX

22-100

SHEET No.
A4.3



EXISTING TREE INVENTORY

TREE INVENTORY

Plan#	Species		Size	Typical Root Zone (CRZ)	CRZ Impacted By Construction	Condition Rating	Condition	Canopy Credited	Activities						Problems/Comments
	Common Name	Scientific Name	DBH	Radius (ft)	%	%		SF	Tree Protection Fence	Root Prune	Mulch	Prune	Remove Vines	Treat Pests	Remove Tree	
1	Red Maple	Acer rubrum	12	12	0	70	Fair	-	x							Offsite Tree
2	Eastern Redbud	Cercis canadensis	10	10	100	45	Poor	-							x	
3	Norway Spruce	Picea abies	10	10	5	80	Good	-	x	x						
4	Black Walnut	Juglans nigra	18,12	22	19	75	Fair	750	x	x						Remove english ivy
5	Sweetgum	Liquidambar styraciflua	18	18	0	85	Good	-	x							Offsite Tree
6	Pecan	Carya illinoinensis	5	8	0	75	Fair	-	x							Offsite Tree
7	Kwanzan Cherry	Prunus serrulata 'Kanzan'	12	12	6	80	Good	-	x	x						Offsite Tree
8	Eastern Redcedar	Juniperus virginiana	16	16	100	80	Good	-							x	
9	Southern Magnolia	Magnolia grandiflora	8	8	24	85	Good	-	x	x						Offsite Tree
10	Eastern Redbud	Cercis canadensis	4,4	8	100	85	Good	-							x	

THIS EXISTING TREE INVENTORY IS PREPARED BY
MR.WM.O'KELLY RUSSEL.
ISA CERTIFIED ARBORIST, MA-5009A

GRAPHIC SCALE

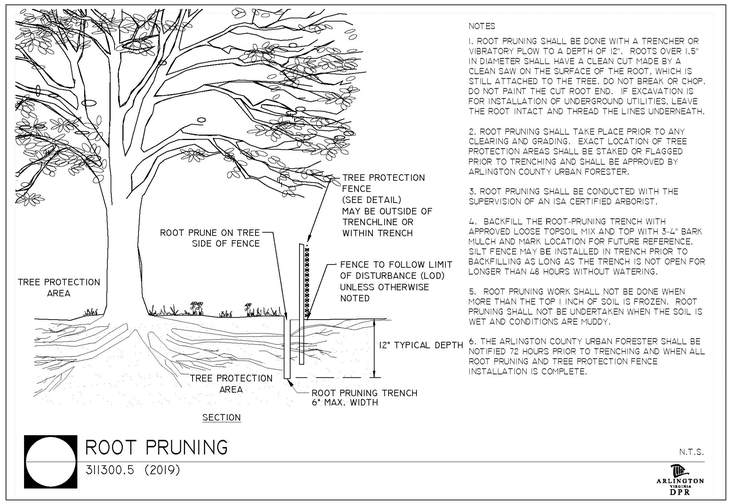
10 0 5 10 20

(IN FEET)
1 INCH=10 FT.

TREE COVER CALCULATIONS

1	GROSS SITE AREA:	7200 SF	0.165 AC
2	PERCENTAGE OF TREE COVER REQUIRED:	20%	
3	TOTAL AREA OF TREE COVER REQUIRED:	1440 SF	0.033 AC
	TREE COVER PROVIDED:		
4	TREE COVER FROM PRESERVATIONS	750.0	0.017 AC
5	CREDIT FROM PRESERVATIONS (X2 BONUS)	750.0 SF	0.017 AC
6	TREE COVER FROM PROPOSED PLANTINGS	0.00 SF	0.000 AC
7	TOTAL TREE COVER PROVIDED:	1500.00 SF	0.034 AC
	(TOTAL TREE PROVIDED 1500 SF>1440 SF REQUIRED)		

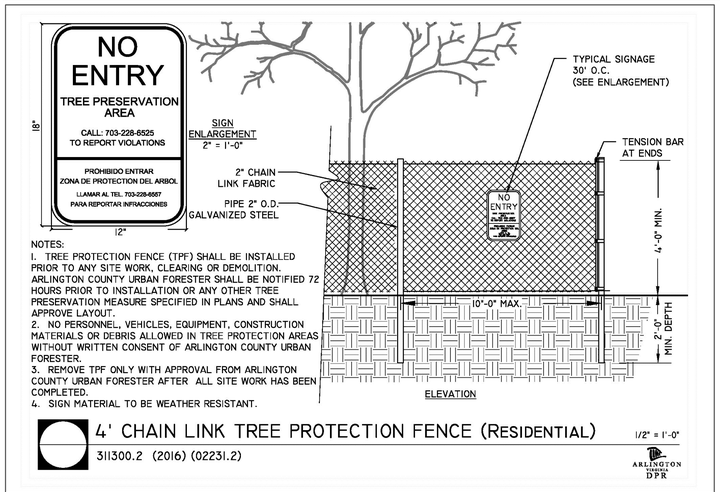
NO NEW TREE PLANTING REQUIRED



NOTES

1. ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY PLOW TO A DEPTH OF 12". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.
2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY ARLINGTON COUNTY URBAN FORESTER.
3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.
4. BACKFILL THE ROOT-PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3-4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.
5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.
6. THE ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

ROOT PRUNING
3I1300.5 (2019)
N.T.S.
ARLINGTON VIRGINIA DPR



NOTES:
1. TREE PROTECTION FENCE (TPF) SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
2. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS WITHOUT WRITTEN CONSENT OF ARLINGTON COUNTY URBAN FORESTER.
3. REMOVE TPF ONLY WITH APPROVAL FROM ARLINGTON COUNTY URBAN FORESTER AFTER ALL SITE WORK HAS BEEN COMPLETED.
4. SIGN MATERIAL TO BE WEATHER RESISTANT.

4' CHAIN LINK TREE PROTECTION FENCE (RESIDENTIAL)
3I1300.2 (2016) (02231.2)
1/2" = 1'-0"
ARLINGTON VIRGINIA DPR

LEGEND

- LOD — LIMIT OF DISTURBANCE
- SSF — SUPER SILT FENCE
- RP — ROOT PRUNING TRENCH
- TREE TO BE REMOVED
- EX. TREE
- CRITICAL ROOT ZONE (CRZ)

Date: 11/4/ 2021

Ram Pradhan, P.E
Inova Engineering Consultants Inc
25209 Larks Terrace,
South Riding, VA 20152
Ph #703-655-3951

Amy Lynn Castner
3209 23rd Street N
Arlington, VA 22201

Dear Sir/Madam,

This letter is being sent to you in accordance with the Arlington County Chesapeake Bay Ordinance on behalf of the property owner at 3205 23rd Street N, Arlington, VA 22201. This letter serves as notice of the future construction and the proposed land disturbing activities at 3205 23rd Street N, Arlington, VA 22201

The enclosed tree protection plan shows that a 12" Kwanzan Cherry (Tree #7) and 8" Southern Magnolia (Tree #9) on your property that has critical root zones that expands into disturbed area of the proposed construction. The appropriate tree protection measures like tree protection fencing with root pruning trench will be installed.

If you wish to discuss this plan, please contact me directly at above referenced phone number. We will make all efforts to maintain the natural integrity of the community. Thank you very much for your cooperation and understanding.

Sincerely,

Ram Pradhan,P.E
Inova Engineering Consultants Inc.
25209 Larks Ter.
Chantilly, VA 20152
Ph #703-655-3951
Email: info@inovaengineers.com

TREE PRESERVATION NOTES:

1. BEFORE ANY GRADING, DEMOLITION, OR OTHER DISTURBANCE, TREE PROTECTION NEEDS TO BE INSTALLED PER PLAN, AND INSPECTED BY AN ARLINGTON COUNTY PARKS AND RECREATION URBAN FORESTER. EROSION AND SEDIMENT CONTROLS ARE INSPECTED BY THE DEPARTMENT OF ENVIRONMENTAL SERVICES.
2. PLANTS SHALL BE FURNISHED AND INSTALLED AS INDICATED, INCLUDING ALL PLANTS, MATERIALS, AND EQUIPMENT.
3. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS, WELL-DEVELOPED DENSELY FOLIATED BRANCHES, AND VIGOROUS ROOT SYSTEMS; AND BE FREE FROM DEFECTS AND INJURIES.
4. PLANTS SHALL BE PLANTED ON THE DAY OF DELIVERY IF/WHEN PRACTICAL. IN THE EVENT THAT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE-DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD SHALL BE REJECTED, UNLESS OWNER AND CONTRACTOR PROVIDE OTHERWISE BY WRITTEN AGREEMENT. ALL PLANTS KEPT ON SITE FOR ANY PERIOD OF TIME SHOULD BE WATERED AND CARED FOR USING ANSI A300 STANDARDS.
5. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY.
6. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOP SOIL THAT IS IN MUDDY OR FROZEN CONDITION. LAWNS, TREES AND SHRUBS SHALL BE INSTALLED BETWEEN 03/15 AND 06/15 OR BETWEEN 09/15 AND 12/01. IF A PROJECT COMPLETION IS OUTSIDE OF THIS PLANTING PERIOD, CONTACT THE ARLINGTON COUNTY URBAN FORESTER TO OBTAIN A DEFERRAL OR APPROVAL FOR PLANTING OUT OF SEASON.
7. NO PLANT, EXCEPT GROUNDCOVERS, SHALL BE PLANTED WITHIN TWO FEET OF A SIDEWALK.
8. TREES AND SHRUBS SHALL BE PLANTED IN HOLES TWO TO THREE TIMES AS WIDE AND TO THE DEPTH OF THE ROOT BALL.
9. PLANTS SHALL BE PLANTED IN IN SITU SOIL THAT IS THOROUGHLY WATERED.
10. SET ALL PLANTS PLUMB AND STRAIGHT SET AT SUCH LEVEL THAT NORMAL OR NATURAL RELATIONSHIP BETWEEN THE PLANT AND THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE THE PLANT IN THE CENTER OF THE PIT.
11. INJURED ROOTS SHALL BE PRUNED TO CLEAN ENDS BEFORE PLANTING WITH CLEAN, SHARP TOOLS. THE LEADER OF TREES SHALL NOT BE CUT BACK.
12. PRESERVED AND PLANTED TREES MUST BE INSPECTED AND APPROVED BY A DEPARTMENT OF PARKS AND RECREATION URBAN FORESTER.
13. ALL DISTURBED AREAS SHALL BE TREATED WITH 4" TOP SOIL OR COMPOST AND SEEDED IN ACCORDANCE WITH PERMANENT STABILIZATION METHODS INDICATED ON SOIL EROSION AND SEDIMENT CONTROL SHEET AND/OR LANDSCAPE PLAN.

Inova Engineering Consultants, Inc
(Engineers, Surveyors, Land Development)
25209 Larks Terrace
South Riding, Virginia 20152
Phone :(703) 655-3951
E-mail: info@inovaengineers.com

COMMONWEALTH OF VIRGINIA — RAM K. PRADHAN — LIC. No. 042034 — 01-10-22 — PROFESSIONAL ENGINEER

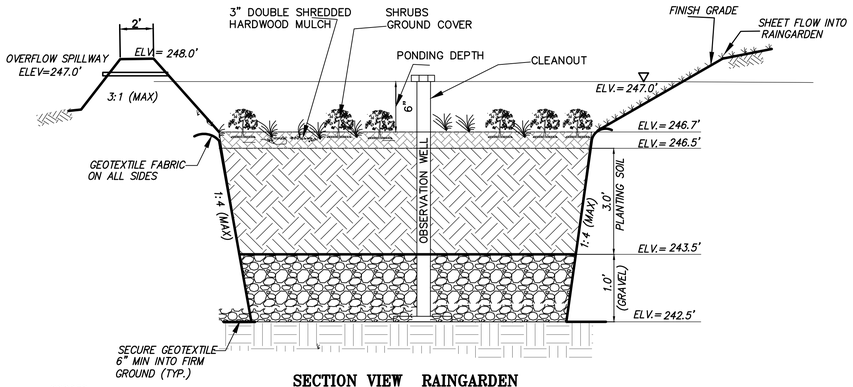
TREE PRESERVATION PLAN

3RD MAYWOOD, LOT 166
3205 23RD STREET N, ARLINGTON
ARLINGTON COUNTY, VA 22201

NO.	DATE	DESCRIPTION	BY
		REVISION BLOCK	

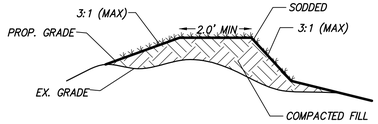
RPC:	05-060-005
MAP BOOK/PG	043-03
DESIGN BY:	RLP
CHECKED BY:	
DATE:	09-02-2021
SCALE:	1":10'

SHEET : 5 OF 12



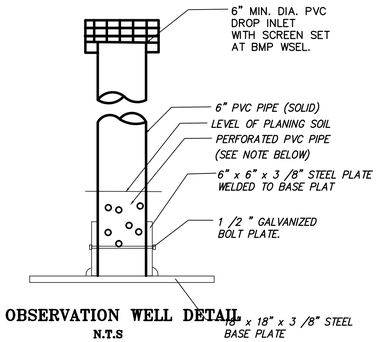
SECTION VIEW RAINGARDEN

N.T.S.



PONDING BERM DETAIL

NOTE:
THE BERM SHALL BE MAXIMUM OF 2.0 FEET IN HEIGHT MEASURED FROM THE DOWNSTREAM TOE OF THE SLOPE.



OBSERVATION WELL DETAIL
N.T.S

SWM CONSTRUCTION INSPECTION STATEMENT

THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, OR CLASS III LAND SURVEYOR, WHO WILL PROVIDE TO ARLINGTON COUNTY ALL APPLICABLE CONSTRUCTION INSPECTIONS LOGS AND TEST DOCUMENTATION FOR THE FACILITY AND PREPARE AND SUBMIT A WRITTEN STATEMENT CERTIFYING THE FACILITY WAS BUILT AS DESIGNED PER THE APPROVED PLAN.

SWM FACILITIES PRIVATE MAINTENANCE NOTES:

THE STORMWATER MANAGEMENT FACILITIES SHALL BE PRIVATELY INSPECTED AND MAINTAINED ACCORDING TO COUNTY REQUIREMENTS.

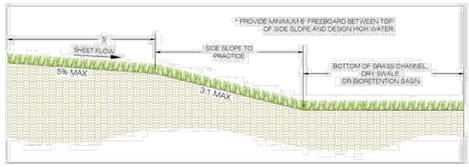


Figure 9.7b. Pretreatment II – Grass Filter for Sheet Flow

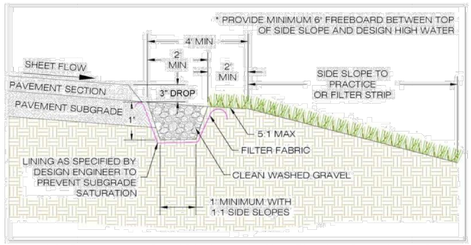
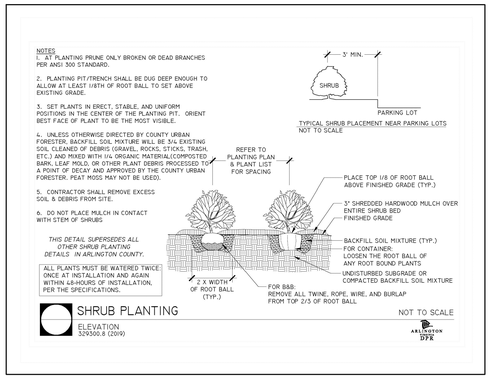


Figure 9.8 - Pretreatment – Gravel Diaphragm for Sheet Flow from Impervious or Pervious



Mulch Layer	Use aged, shredded hardwood bark mulch	Lay a 2 to 3 inch layer on the surface of the filter bed.
Geotextile/Liner	Use a non-woven geotextile fabric with a flow rate of > 110 gal./min./sq. ft. (e.g., Geotex 351 or equivalent)	Apply only to the vertical sides and 2' on each side of the underdrain. Do not install at the bottom or between layers.
Choking Layer	3 inch layer of pea gravel or VDOT #8 stone which is laid over the underdrain stone.	
Stone Jacket for Underdrain and/or Storage Layer	1 inch stone should be double-washed and clean and free of all fines (e.g., VDOT #57 stone).	12 inches for the underdrain; 12 to 18 inches for the stone storage layer, if needed
Underdrains, Cleanouts, and Observation Wells	Use 6 inch rigid schedule 40 PVC pipe for bioretention basins, with 3/8-inch perforations at 6 inches on center, maximum of 3 rows of perforations; position each underdrain on a 1% or 2% slope located nor more than 20 feet from the next pipe.	All bioretentions are to have an observation well, cleanout or overflow pipe. Lay the perforated pipe under the length of the bioretention cell, and install non-perforated pipe as needed to connect with the storm drain system. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface with vented caps at the Ts and Ys.
Plant Materials	Tree –minimum 1 inch caliper, 15' on-center. Shrub – minimum 30 inches high, 10' on-center. Perennials/Herbaceous - container-grown at 18-24 inches on center	A planting plan is required such that: For Level 1 designs – there is 75% surface coverage within 2 years For Level 2 designs – there is 90% surface coverage within 2 years

Construction Installation. The installation and inspection of the construction of bioretentions are to follow the Construction Inspection Checklist for Bioretention (See Appendix G). The checklist is to be included on the plan.

Maintenance Activities for Bioretention. The following is the list of maintenance activities for bioretention. The table is to be included on plans proposing bioretention.

Bioretention Maintenance Schedule

Maintenance	Frequency
• Spot weeding, erosion repair, trash removal, and mulch raking	Twice during growing season
• Add reinforcement planting to maintain the desired vegetation density • Remove invasive plants using recommended control methods • Stabilize the contributing drainage area to prevent erosion	As needed
• Spring inspection and cleanup • Supplement mulch to maintain a 2-3 inch layer • Prune trees and shrubs	Annually
• Remove sediment in pre-treatment cells and inflow points	Once every 2 to 3 years
• Replace the mulch layer	Every 3 years
• Inspected and certified by a professional licensed in the State of Virginia	Once every 5 years

Bioretention Maintenance Schedule

Maintenance	Frequency
• Spot weeding, erosion repair, trash removal, and mulch raking	Twice during growing season
• Add reinforcement planting to maintain the desired vegetation density • Remove invasive plants using recommended control methods • Stabilize the contributing drainage area to prevent erosion	As needed
• Spring inspection and cleanup • Supplement mulch to maintain a 2-3 inch layer • Prune trees and shrubs	Annually
• Remove sediment in pre-treatment cells and inflow points	Once every 2 to 3 years
• Replace the mulch layer	Every 3 years
• Inspected and certified by a professional licensed in the State of Virginia	Once every 5 years

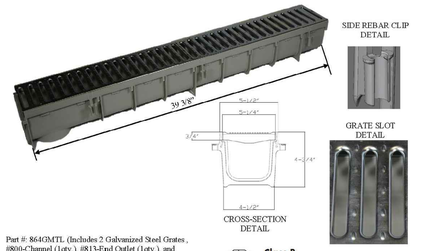
PROPOSED PLANTINGS FOR RAIN GARDEN			
BOTANICAL NAME	COMMON NAME	QTY	STOCK SIZE
Asclepias incarnata	Swamp milkweed	6	1 Quart
Itea virginica	Virginia sweetspire	4	3 GAL
Panicum virgatum	Switchgrass	6	1 Quart
Ilex glabra	Inkberry	4	3 GAL
Azeala viscosum	Swamp azeala	4	3 GAL
Sorghastrum nutans	Indian grass	6	1 Quart
Viburnum dentatum	Arrowwood viburnum	4	3 GAL

RAINGARDEN NOTE:

A RAINGARDEN HAS BEEN PROPOSED BY THIS PLAN.FAILURE TO MEET MINIMUM PERCOLATION RATES AND PASS INSPECTION AT END OF CONSTRUCTION OF THE RAINGARDEN WILL REQUIRE SUBMISSION OF A REVISED STORMWATER MANAGEMENT PLAN TO MEET THE ORDINANCE'S COMPLIANCE REQUIREMENTS.NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL THE REVISED PLAN IS APPROVED AND THE NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTED AND APPROVED.

NDS — WE PUT WATER IN ITS PLACE — TECHNICAL SPECIFICATIONS

5 Inch Pro Series Drain Kit With Metal Grate



Part #: 864GMTL (Includes 2 Galvanized Steel Grates , #800-Channel (1qty.), #813-End Outlet (1qty.), and #812-End Cap (1qty.)
Material: Channel (Polyolefin) Grates (Galvanized Steel)
Color: Light Gray / Galvanized Steel
Fits: 3" (Hub) and 4" (Spigot) Sewer/Drain Pipe
Rebar tie clips for easier installation: Fits #4 Rebar

Grate Opening: 0.45"x 4"

Open Surface Area: 19.32 sq. inch per linear ft.

Head Pressure / Flow Rate:
Head (inches) - Max Flow
1" = 83.38 GPM per foot
0.5" = 59.10 GPM per foot
Weight per unit: 7.70 lbs.
Screw: #829 Stainless Steel Screw, 4 per grate.
UV Inhibitors

ADA Compliance
NDS provides a wide selection of grates that are compliant with the Americans with Disabilities Act, the ADA Accessibility Guidelines For Buildings and Facilities section 4.5.4 specifies that ground and floor grates "shall have spaces no greater than 1/2 in (13 mm) wide in one direction."

We are pleased to provide grates that comply with these requirements, so that no individual need be limited from accessing the area safely and confidently.

To see if a grate is ADA compliant, please check the description of the product in our NDS Drainage Catalog; products that meet these requirements are marked "ADA compliant."

Like to find out more about ADA compliance and NDS? Send us your questions and we'd be happy to help.

ADA COMPLIANT

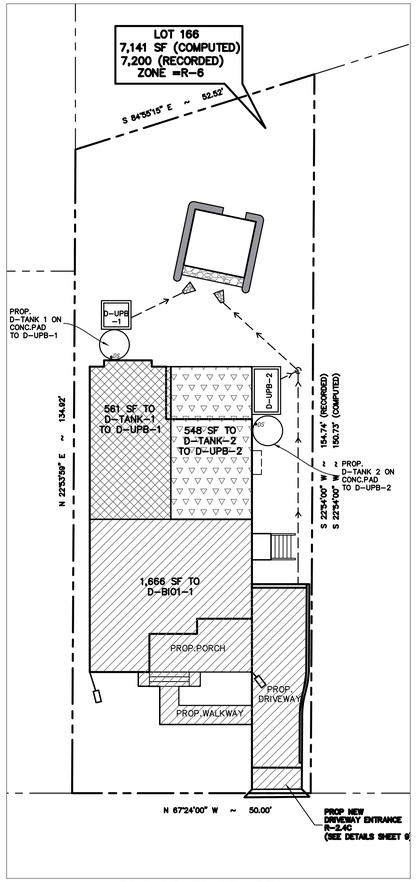
Class B
- Loads of 61-175 psi.
- Recommended for medium-duty pneumatic tire traffic, autos and light trucks at speeds less than 20 m.p.h.

Note: Some installations may require a concrete collar to meet load rating. Loads are based on ensuring product in concrete. Product must be installed using NDS instructions.

855 N. Harvard Avenue
Lindsay, CA 93247
800.726.1956

Visit ndspro.com for specs, detail drawings, and case studies

NDS — WE PUT WATER IN ITS PLACE



BMP DRAINAGE AREA
SCALE- 1:15

DDA	2.f. To Rain Garden #1, Micro-Bioretention #1 (Spec #9)	Impervious area (sf)	Pervious area (sf)	Detention credit (cf)	Downstream from tank?	WQV (cf)
	D-BIO1-1	1666		61.5	No	131.9
	D-BIO1-2					
	D-BIO1-3					
	D-BIO1-4					
	Subtotal	1666	0	61.5		

Top Surface Area	Bottom Surface Area	Ponding depth (in)	Ponding Volume (cf)	Filter depth (in)	Gravel depth (in)	Filter : Gravel Depth Ratio	Filter Ratio Validation	Soil Storage Volume (cf)	Gravel Storage Volume (cf)	Available Storage (cf)	% Water quality volume captured	WQV Validation MINIMUM	WQV Validation MAXIMUM
156.0	90.0	6.0	61.5	36.0	12.0	3.0		67.5	36.0	165.0	125.1%	Pass	Pass

July 2014 (Revised April 2015). Sizing spreadsheet for bioretention for compliance with Arlington County Stormwater Managment Ordinance
Enter data into highlighted cells. WQV needs to > 100% for credit.

Facility name/type	Design Level	Impervious Area to Facility	Pervious Area to Facility	Total Drainage Area	Total Drainage Area	Rainfall Depth (P)	Rv	Target storage (WQv)	Width	Length	Ponding depth	Filter depth	Gravel depth	Filter : Gravel Depth Ratio	Gravel Sump below underdrain *Required for Level 2 Designs that include an underdrain (No storage credit provided)*	Top Surface Area	Bottom Surface Area (3:1 slopes)	Ponding Volume (1.00 void)	Soil Storage Volume (0.25 void)	Gravel Storage Volume (0.4 void)	Available Storage	% Water Quality Volume Captured
		(SF)	(SF)	(SF)	(acre)	(in)		(CF)	(ft)	(ft)	(in)	(in)	in	Level 1: ≥ 2:1 Level 2: ≥ 3:1	(in)	(SF)	(SF)	(CF)	(CF)	(CF)	(CF)	Must be ≥ 100% (Max. 200%)
Bioretention #1	Level 1	1666	0	1666	0.0382	1.00	0.95	131.89	12.00	13.00	6	36	12	3.00	N/A	156.00	90.00	61.50	67.50	36.00	**165.00**	**125.1%**

BMP GEOMETRY NOTE:

LENGTH OF SHORTEST FLOW PATH (SFP) =12'
LENGTH FROM THE MOST DISTANT INLET TO THE OUTLET(L)=13'

SFP/L=12/13=0.92

Inova Engineering Consultants, Inc
(Engineers, Surveyors, Land Development)
25209 Larks Terrace
South Riding, Virginia 20152
Phone :(703) 655-3951
E-mail: info@inovaengineers.com

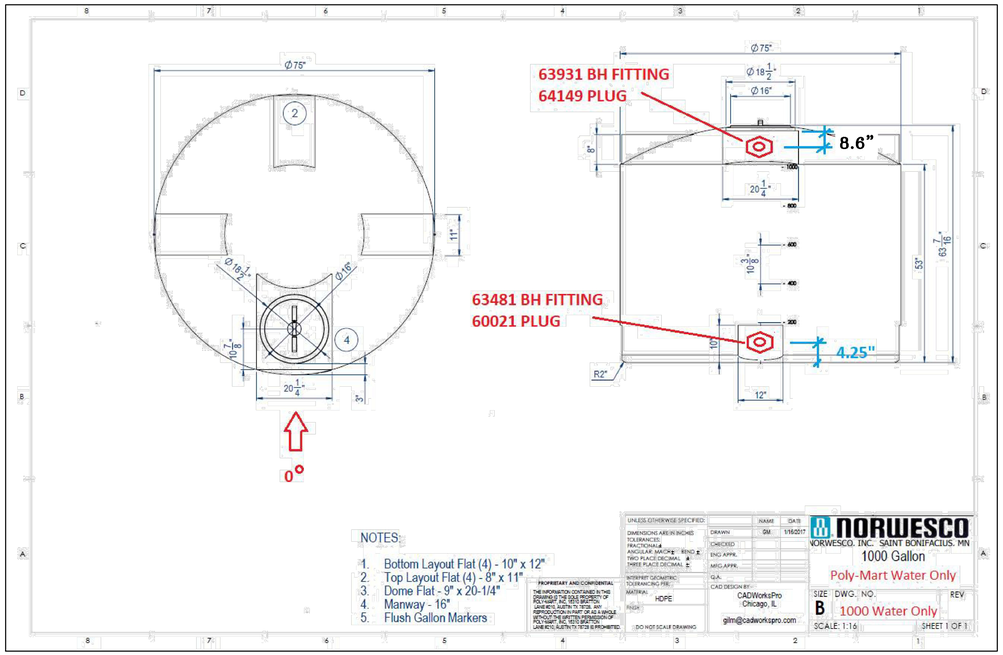
RAINGARDEN DESIGN AND DETAILS

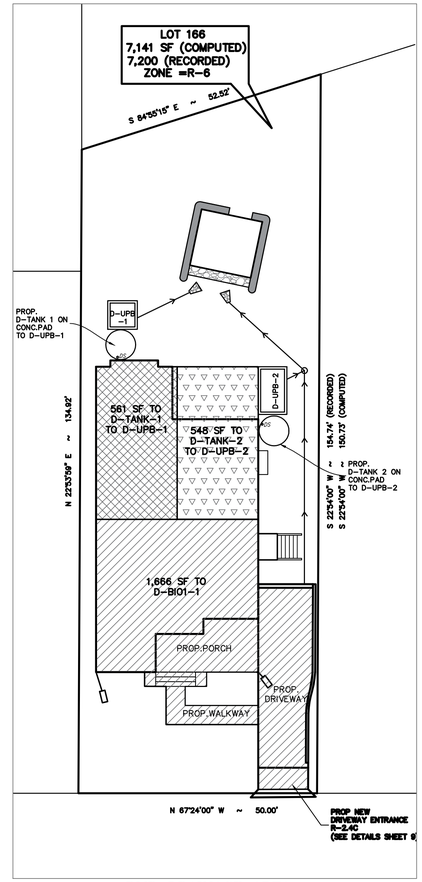
3RD MAYWOOD, LOT 166
3205 23RD STREET N, ARLINGTON
ARLINGTON COUNTY, VA 22201

NO.	DATE	DESCRIPTION REVISION BLOCK	BY

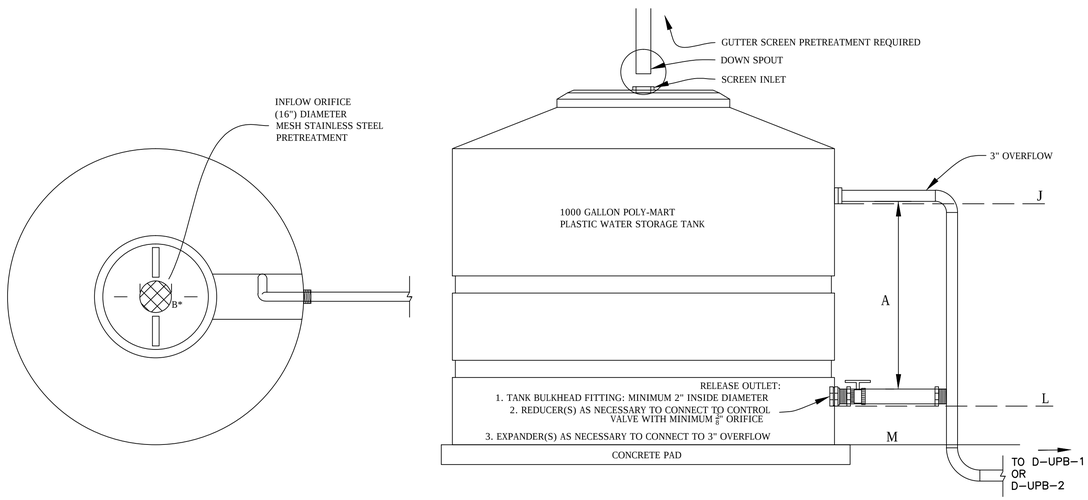
RPC:	05-060-005
MAP BOOK/PG	043-03
DESIGN BY:	RLP
CHECKED BY:	
DATE:	09-02-2021
SCALE:	N/A

SHEET : 8 OF 12





BMP DRAINAGE AREA
SCALE- 1:15



TANK ELEVATION TABLE		
	D-TANK-1	D-TANK-2
3" OVERFLOW INV OUT (J)	258.55 FEET	259.05 FEET
DISTANCE BETWEEN ORIFICE AND OVERFLOW (A)	4.2 FEET	4.2 FEET
3/4" ORIFICE INV OUT TO PLANTER BOX (L)	254.35 FEET	254.85 FEET
BOTTOM OF TANK (M)	254.0 FEET	254.5 FEET

DETENTION TANK MAINTENANCE SCHEDULE
MAINTENANCE ACTIVITY
INSPECT AND CLEAN GUTTER SCREENS/GUTTERS
INSPECT AND CLEAN INFLOW SCREEN
OBSERVE PIPE CONNECTIONS FOR LEAKS
INSPECT SUMP AND REMOVE DRAIN PLUG TO REMOVE ANY DEBRIS, IF NECESSARY
INSPECT OUTFLOW FOR EROSION AND/OR CLOGGING
INSPECT TANK STRUCTURAL INTEGRITY AND PIPEWORK BY QUALIFIED PROFESSIONALS

DETENTION TANK NOTES:

1. ENTER TANK DIMENSIONS IN COMPUTATIONAL SPREADSHEET.
2. PROVIDE LEVEL FOUNDATION ON CONCRETE PAD
3. FOR MANUFACTURED TANKS, FOLLOW MANUFACTURER'S SPECIFICATIONS FOR ALL CONNECTIONS AND FITTINGS INCLUDING INLET, OVERFLOW, AND CLEAN OUT.
4. MULTIPLE TANKS CAN BE CONNECTED.
5. TANK DESIGN MAY PROVIDE FOR STORAGE OF IRRIGATION WATER OR BELOW OUTLET ELEVATION AND/OR CONNECTION TO A SEPARATE TANK TO STORE IRRIGATION WATER.
6. TEST TANK BY FILLING WITH WATER AND TESTING ALL COMPONENTS.

ROOF RUNOFF

Tanks

DDA		Impervious area (sf)		Detention credit (cf)
1	D-Tank 1	561		127.7
2	D-Tank 2	548		127.7
	D-Tank 3			
	D-Tank 4			
	Subtotal	1109		255.3
			Pass	

Tank Sizing

Tank Volume (CF)	Tank Height (ft)	Tank Geometry	Uniform Tank Average Surface Area (sf)	Nonuniform Tank Average Surface Area (sf)	Height from orifice to overflow (ft) - A	Tank inflow diameter (ft) - B	Volume provided (cf)	Inches	Storage Validation	Orifice diameter (in) - C	Maximum release rate (cfs)	Relase rate validation	Overflow pipe diameter (in) - D
160.5	5.3	Uniform	30.4		4.2	1.33	127.7	2.9	Pass	0.3750	0.008	Pass	3.0
160.5	5.3	Uniform	30.4		4.2	1.33	127.7	2.9	Pass	0.3750	0.008	Pass	3.0

*Designers must provide justification for nonuniform tank average surface area (between orifice and overflow)

Tank Sourcing Information

Material	Manufacturer	Distributor
Plastic	Polymart	Plastic-Mart
Plastic	Polymart	Plastic-Mart

*Enter' NA" if tank constructed onsite

RELEASE NOTE:

RELEASE FROM D-TANK-1 WILL BE DIRECTED TO D-UPB-1 AS SHOWN ON THE PLANS.

RELEASE FROM D-TANK-2 WILL BE DIRECTED TO D-UPB-2 AS SHOWN ON THE PLANS.

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(Engineers, Surveyors, Land Development)
25209 Larks Terrace
South Riding, Virginia 20152
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E-mail: info@inovaengineers.com

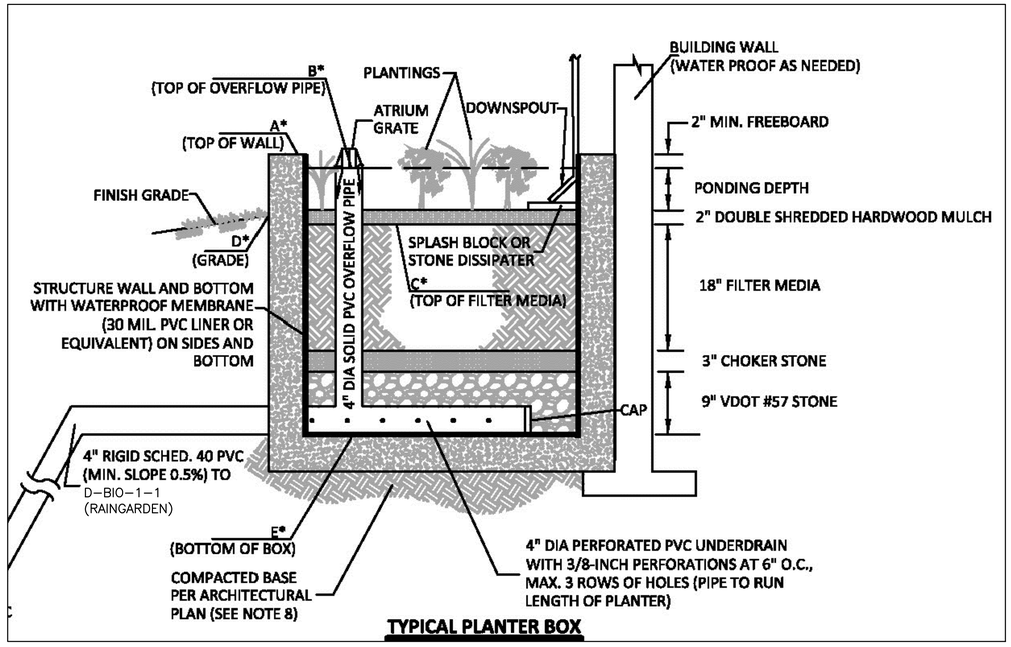
DETENTION TANK DESIGN AND DETAILS

3RD MAYWOOD, LOT 166
3205 23RD STREET N, ARLINGTON
ARLINGTON COUNTY, VA 22201

NO.	DATE	DESCRIPTION REVISION BLOCK	BY

RPC:	05-060-005
MAP BOOK/PG	043-03
DESIGN BY:	RLP
CHECKED BY:	
DATE:	09-02-2021
SCALE:	N/A

SHEET : 8A OF 12



TYPICAL PLANTER BOX

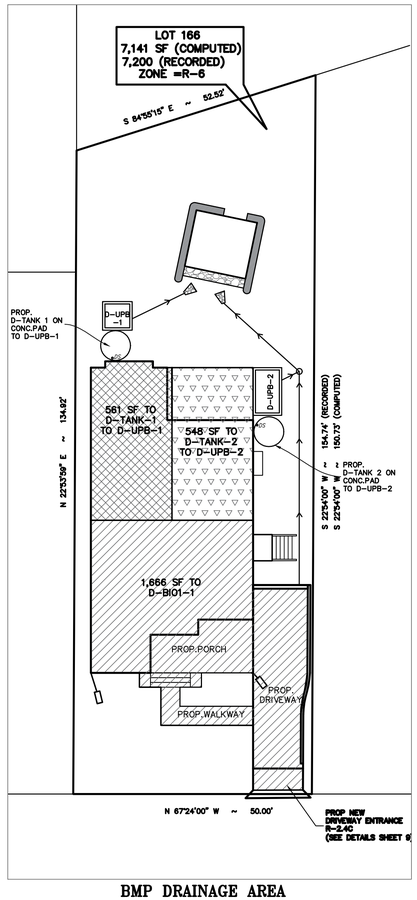
Planter Box Maintenance Schedule

Maintenance	Frequency
• Spot weeding, erosion repair, trash removal, and mulch raking	Twice during growing season
• Add reinforcement planting to maintain the desired vegetation density • Remove invasive plants using recommended control methods • Stabilize the contributing drainage area to prevent erosion	As needed
• Spring inspection and cleanup • Supplement mulch to maintain a 2-3 inch layer • Prune trees and shrubs • Examine for the ponding depth and adjust accordingly • Inspect inflows and overflow for erosion • Inspect for structural deficiencies and repair	Annually
• Remove sediment in pre-treatment cells and inflow points	Once every 2 to 3 years
• Replace the mulch layer	Every 3 years
• Inspected and certified by a professional licensed in the State of Virginia	Once every 5 years

Planter Box Material Specifications

Material	Specification	Notes
Waterproofing	Watertight shell or impermeable liner	Use a thirty mil (minimum) PVC Geomembrane liner or equivalent.
Filter Media Composition	Filter Media to contain: • 80%-90% sand with >75% being coarse to very coarse • 10%-20% soil fines • 3%-5% organic matter in the form of plant based compost meeting Clearinghouse Design Specification #4, Section 6.5	The volume of filter media based on 110% of the plan volume, to account for settling or compaction.
Filter Media Testing	Plant available P within Low+ (L+) to Medium (M) per DCR 2014 Nutrient Management Criteria (18-40 mg/kg P for the Mehlich III procedure) and CEC >5	The media must be procured from approved filter media vendors.
Mulch Layer	Use aged, shredded hardwood bark mulch	Lay a 2 to 3 inch layer on the surface of the filter bed.
Choking Layer	3 inch layer of pea gravel or VDOT #8 stone which is laid over the underdrain stone.	
Stone Jacket for Underdrain and/or Storage Layer	1 inch stone should be double-washed and clean and free of all fines (e.g., VDOT #57 stone).	12 inches for the underdrain
Underdrains and Overflows	Use 4 inch rigid schedule 40 PVC pipe with 3/8-inch perforations at 6 inches on center, maximum of 3 rows of perforations; position each underdrain on a 1% or 2% slope.	Lay the perforated pipe under the length of the planter box, and install non-perforated pipe as needed to connect with the storm drain system. Install T's and Y's as needed, depending on the underdrain configuration. Extend overflow pipes to the surface with vented caps.
Plant Materials	1 quart-sized perennial installed per 1-2 sf and/or 1 3-gallon shrub installed per 7.5 sf over entire ponding area from DEQ Specification 9: Table 9.5	Choose either herbaceous and/or shrubs

PROPOSED PLANTINGS FOR D-UPB-1			
BOTANICAL NAME	COMMON NAME	QTY	STOCK SIZE
Asclepias incarnata	Swamp milkweed	2	1 Quart
Itea virginica	Virginia sweetspire	1	3 GAL
Panicum virgatum	Switchgrass	2	1 Quart
Azeala viscosum	Swamp azeala	1	3 GAL
PROPOSED PLANTINGS FOR D-UPB-2			
BOTANICAL NAME	COMMON NAME	QTY	STOCK SIZE
Asclepias incarnata	Swamp milkweed	2	1 Quart
Itea virginica	Virginia sweetspire	2	1 Quart
Panicum virgatum	Switchgrass	2	3 GAL
Azeala viscosum	Swamp azeala	2	3 GAL



BMP DRAINAGE AREA
SCALE- 1:15

WATER PROOFING NOTE:

ARLINGTON COUNTY DOES NOT REVIEW THE WATER PROOFING DESIGN AND THE OWNER/DEVELOPER AGREES TO HOLD ARLINGTON COUNTY HARMLESS IN THE EVENT OF FAILURE.

RELEASE NOTE:

RELEASE FROM D-UPB-1 AND D-UPB-2 WILL BE DIRECTED TO D-BIO1-1. THERE IS EXCESS STORAGE IN D-BIO-1-1 TO ACCOMMODATE THE 25% WQV FROM D-UPB-1 AND D-UPB-2.

SWM CONSTRUCTION INSPECTION STATEMENT

THE STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, OR CLASS III LAND SURVEYOR, WHO WILL PROVIDE TO ARLINGTON COUNTY ALL APPLICABLE CONSTRUCTION INSPECTIONS LOGS AND TEST DOCUMENTATION FOR THE FACILITY AND PREPARE AND SUBMIT A WRITTEN STATEMENT CERTIFYING THE FACILITY WAS BUILT AS DESIGNED PER THE APPROVED PLAN.

SWM FACILITIES PRIVATE MAINTENANCE NOTES:

THE STORMWATER MANAGEMENT FACILITIES SHALL BE PRIVATELY INSPECTED AND MAINTAINED ACCORDING TO COUNTY REQUIREMENTS.

VRRM practices

DDA	2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	Impervious area (sf)	Pervious area (sf)	Detention credit (cf)	Downstream from tank?	WQV (cf)
1	D-UPB-1	561		32.5	Yes	44.4
	D-UPB-2	548		56.3	Yes	43.4
	D-UPB-3					
	D-UPB-4					
	D-UPB-5					
	D-UPB-6					
	Subtotal	1109	0	88.8		

Sizing

Length (ft)	Width (ft)	Ponding depth (in)	Filter depth (in)	Gravel depth (in)	Surface Area (sf)	Ponding Volume (cf)		Soil Storage Volume (cf)	Gravel Storage Volume (cf)	Available Storage (cf)	% Water quality volume captured	WQV Validation MINIMUM	WQV Validation MAXIMUM
5.2	5.0	12.0	18.0	12.0	26.0	26.0		9.8	10.4	46.2	103.9%	Pass	Pass
9.0	5.0	12.0	18.0	12.0	45.0	45.0		16.9	18.0	79.9	184.1%	Pass	Pass

Elevations

A - top of planter wall	B - top of overflow pipe	C - top of filter media	D - finish grade	E - bottom of facility
253.0	252.7	251.5	252.0	249.0
254.2	253.7	252.5	250.2	250.0
	0.2	0.0		
	0.2	0.0		
	0.2	0.0		
	0.2	0.0		

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PLANTER BOX DESIGN AND DETAILS

3RD MAYWOOD, LOT 166
3205 23RD STREET N, ARLINGTON
ARLINGTON COUNTY, VA 22201

NO.	DATE	DESCRIPTION REVISION BLOCK	BY

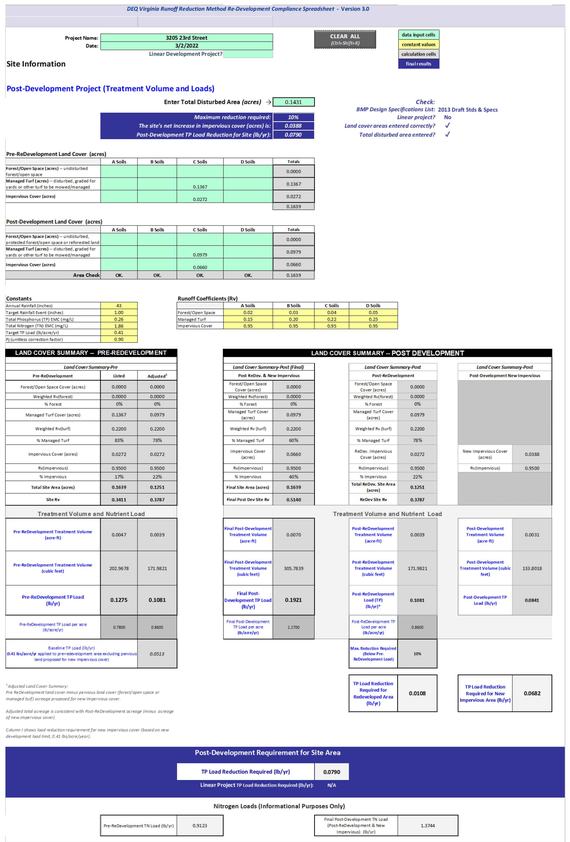
RPC:	05-060-005
MAP BOOK/PG	043-03
DESIGN BY:	RLP
CHECKED BY:	
DATE:	09-02-2021
SCALE:	N/A

Site Information - Revised 9/13/2021

Project SWM #	LDA Permit #	Disturbed Area (acres)	% Pre-Impervious	% Post-Impervious	Pre-Development TP load (lb/yr)	Post-Development TP load (lb/yr)	TP load reduction achieved (lb/yr)	Pre-Development TN load (lb/yr)	Post-Development TN load (lb/yr)	TN load reduction achieved (lb/yr)	Total Site Area (acres)	Pre-Forest Area (acres)	Pre-Turf Area (acres)	Pre-Impervious Area (acres)	Post-Forest Area (acres)	Post-Turf Area (acres)	Post-Impervious Area (acres)	Pre-Runoff Volume	Post-Runoff Volume	Runoff Volume Reducation Achieved	Site Latitude (Decimal Degrees)	Site Longitude (Decimal Degrees)	Anticipated Start Date
21-0340	LDA21336	0.1431	16.6	40.3	0.13	0.19	0.08	0.91	1.37	0.63	0.1639	0.0000	0.1367	0.0272	0.0000	0.0979	0.0660	202.9678	305.7839	87.8750	38.898397	-77.099373	6/15/2022

Stormwater Management Facility Information- Revised12/9/2021

DDA	Facility Type**	Description	Location	LDA Permit #	Project SWM #	Building Permit #	Facility ID	BMP downstream of another BMP (in Series)?	Upstream (Primary) BMP	Chesapeake Bay Segment	Watershed	HUC6	Soils	Runoff Treated (in)	Surface Area (ft^2)	Volume Treated (ft^3)	Treated Area (acres)	Forest Area (acres)	Turf Area (acres)	Impervious Area (acres)	RPC	Phosphorus Efficiency (%)	Nitrogen Efficiency (%)	Sediment Efficiency (%)	TP load removed (lbs)	TN load removed (lbs)
D-UPB-1	BIORETENTION #1	Planter Box	Rear Left	LDA21336	21-0340		21-0340A	Yes	21-0340C	POTTF_VA	Spout Run	PL24	C/D	1.00	26.00	44.4	0.0129	0.0000	0.0	0.0129	05060005	55	64	75	0.02	0.20
D-UPB-2	BIORETENTION #1	Planter Box	Rear Right	LDA21336	21-0340	0	21-0340B	Yes	21-0340D	POTTF_VA	Spout Run	PL24	C/D	1.00	45.00	43.4	0.0126	0.0000	0.0	0.0126	05060005	55	64	75	0.02	0.20
D-Tank-1	TANK	Tank	Rear Left	LDA21336	21-0340	0	21-0340C	No		POTTF_VA	Spout Run	PL24	C/D	0.00	30.40	0.0	0.0000	0.0000	0.0	0.0000	05060005	0	0	0	0.00	0.00
D-Tank-2	TANK	Tank	Rear Right	LDA21336	21-0340	0	21-0340D	No		POTTF_VA	Spout Run	PL24	C/D	0.00	30.40	0.0	0.0000	0.0000	0.0	0.0000	05060005	0	0	0	0.00	0.00
D-BIO1-1	BIORETENTION #1	Rain Garden	Rear of Lot	LDA21336	21-0340	0	21-0340E			POTTF_VA	Spout Run	PL24	C/D	1.00	156.00	131.9	0.0382	0.0000	0.0	0.0382	05060005	55	64	75	0.05	0.59



TOTAL SITE AREA	Areas (SF)	Detention (CF)	Rainfall volume (IN)		
Site area	7141		3.0		
Total impervious area	2875				
	40.3%				
Roof	2189				
Paving	596				
		Required	Achieved		
Impervious area increase	1691	402	440	110%	OK

Reset Compliance Summary Worksheet tab

DOWNHILL DRAINAGE AREA (DDA)		Required	Achieved		
Total impervious increase	1691	402	440	110%	OK
Roof area increase	1075	255	405	159%	OK
			Tanks	100%	OK

WATER QUALITY COMPLIANCE			
	75% requirement	NA	
	No net increase requirement	117%	OK
	Area treated (SF)	2775	

	DDA Area (sf)	DDA Detention credit (cf)		NDDA Area (sf)	NDDA Detention credit (cf)		Area check with D.A. A and D.A. B tabs
Tanks	1109	255	58%	0	0		
2.i. To Stormwater Planter, Urban Bioretention (Spec #9,	1109	89	20%	0	0		OK
2.f. To Rain Garden #1, Micro-Bioretention #1 (Spec #9)	1666	62	14%	0	0		OK
2.g. To Rain Garden #2, Micro-Bioretention #2 (Spec #9)	0	0	0%	0	0		OK
Detention-only dry wells	0	0	0%	0	0		
3.a. Permeable Pavement #1 (Spec #7)	0	0	0%	0	0		OK
3.b. Permeable Pavement #2 (Spec #7)	0	0	0%	0	0		OK
Trees		35	8%		0		
		440			0		

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Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER (ac)	0.0660	0.0000	0.0000	0.0000	0.0000	OK.
IMPERVIOUS COVER TREATED (ac)	0.0637	0.0000	0.0000	0.0000	0.0000	OK.
MANAGED TURF AREA (ac)	0.0979	0.0000	0.0000	0.0000	0.0000	OK.
MANAGED TURF AREA TREATED (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3): 305.7839

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	87.8750	0.0000	0.0000	0.0000	0.0000	87.8750
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.1921	0.0000	0.0000	0.0000	0.0000	0.1921
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.0758	0.0000	0.0000	0.0000	0.0000	0.0758
TP LOAD REMAINING (lb/yr)	0.1163	0.0000	0.0000	0.0000	0.0000	0.1163
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.6312	0.0000	0.0000	0.0000	0.0000	0.6312

Total Phosphorus

		LINEAR PROJECT:
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	0.1921	
TP LOAD REDUCTION REQUIRED (lb/yr)	0.0790	
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.0758	
TP LOAD REMAINING (lb/yr):	0.1163	
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.0031 **	

**No further TP load reduction required (Required - Achieved < 0.005 lb/yr)

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	1.3744
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.6312
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	0.7432

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Managed Turf (acres)	0.0000		0.0979	0.0000	0.0979	0.2200
Impervious Cover (acres)	0.0000		0.0660	0.0000	0.0660	0.9500
				Total	0.1639	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr)	0.1921
Post Development Treatment Volume in D.A. A (ft^3)	305.7839

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
2.f. To Rain Garden #1, Micro-Bioretention #1 (Spec #9)	40		0.0382	0.0000	52.7567	79.1350	131.8917	25	0.0000	0.0828	0.0455	0.0372	
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40		0.0637	0.0000	87.8678	131.8017	219.6695	25	0.0000	0.1379	0.0758	0.0620	

DDA Trees

	Number		Detention credit (cf)	Credits (cf)
D-New	3		9.0	3
D-6-12"	1		6.0	6
D-13-24"	1		20.0	20
D->24"			0.0	30
Subtotal	5		35.0	

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VIRGINIA RUNOFF REDUCTION METHOD COMPUTATIONS

3RD MAYWOOD, LOT 166
3205 23RD STREET N, ARLINGTON
ARLINGTON COUNTY, VA 22201

NO.	DATE	DESCRIPTION	BY
		REVISION BLOCK	

RPC: 05-060-005
MAP BOOK/PG: 043-03
DESIGN BY: RLP
CHECKED BY:
DATE: 09-02-2021
SCALE: N/A

SHEET : 6 OF 12