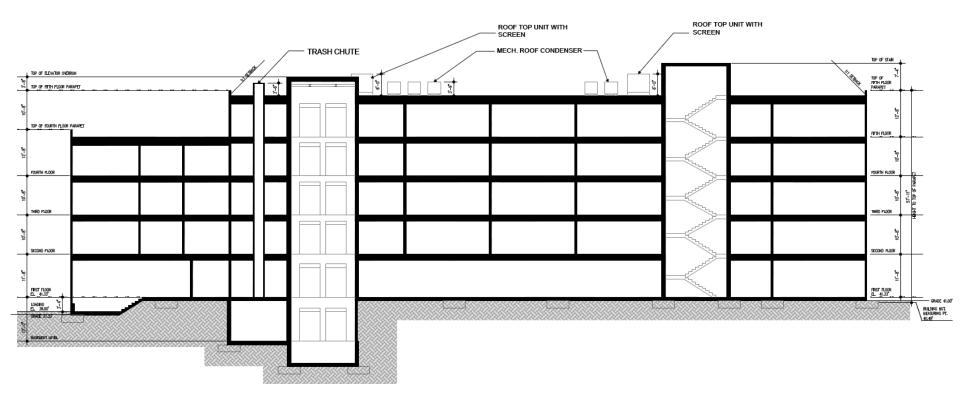


# Site Elevation – A-0.10

ZONING COMMISSION District of Columbia CASE NO.16-20 EXHIBIT NO.45A2



Site Elevation – A-0.10



Building Section – A-4.1







### Inbound Truck Turning Maneuver





Outbound Truck Turning Maneuver





LA-01: SITE LANDSCAPE PLAN

3450 EADS STREET, NE

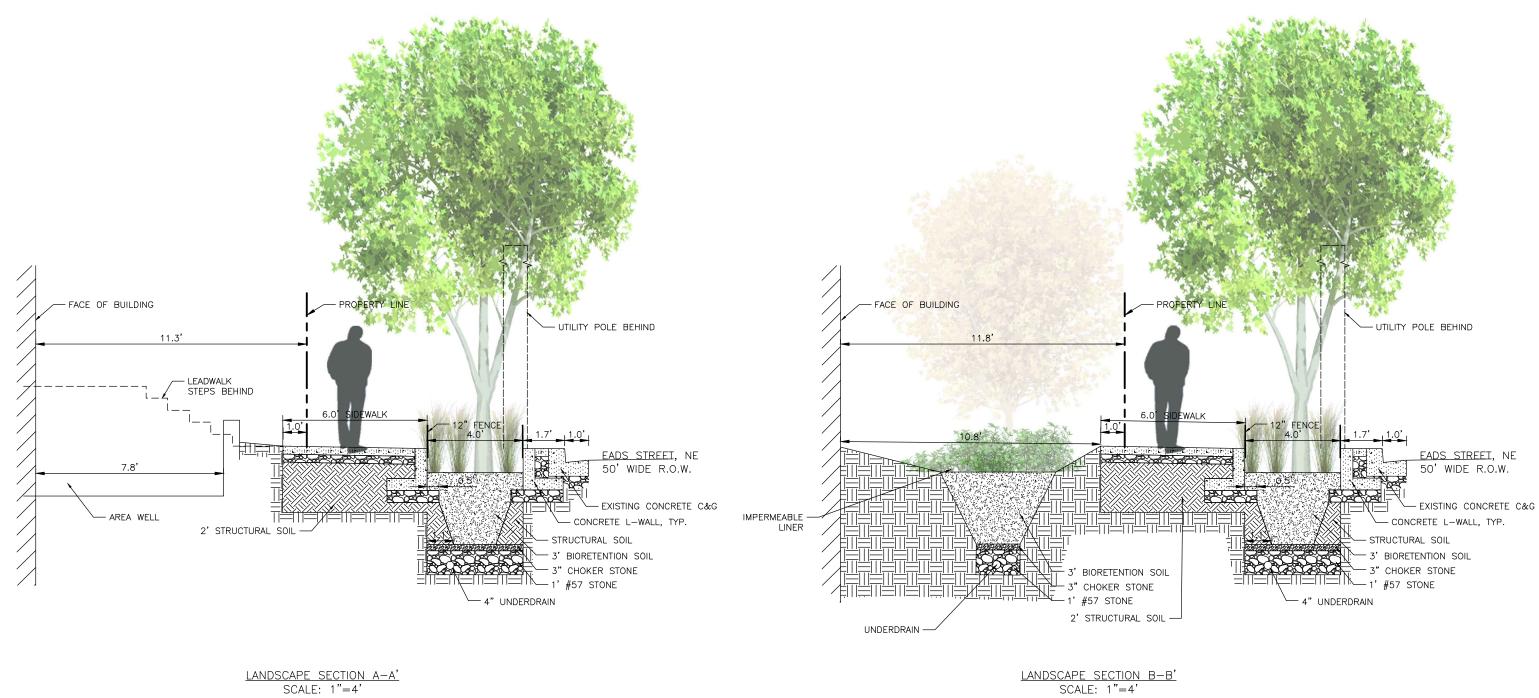
# IF\_\_\_\_\_\_{§

# <u>KEYNOTES</u>

	8' CLF 129'04	1	LOADING ENTRANCE, SEE SITE PLAN
	40.6	2	TREE BOX WITH EXISTING TREE, TREE FENCE ON 3 SIDES
		3	TREE BOX WITH NEW TREE, TREE FENCE ON 3 SIDES
		4	BIORETENTION PLANTING AREA, TREE FENCE ON 4 SIDES
1000		5	3' X 3' DDOT SCORED CONCRETE
	(	6	STAIR AND RAILING TO AT-GRADE UNIT ENTRANCES
		7	EXISTING DDOT COBRAHEAD STREETLIGHT
	•	8	ON-SITE BIORETENTION AREA, PLANTED WITH NATIVE TALL GROUNDCOVER / LOW SHRUBS AND SMALL TREES
		9	5TH FLOOR EXTENSIVE GREEN ROOF (4"-8" DEPTH)
	(	0	UPPER ROOF EXTENSIVE GREEN ROOF (4"-8" DEPTH)
	8' CLF		AREAWAY BELOW, SEE ARCH. PLANS
0 40.82		2	WALKWAY WITH BUILDING ENTRANCE
40.35	CONCRETE CUI ( & GUTTER	3	STAIR TO BUILDING ENTRANCE
	<u>8"W (datr)</u> w	4	GARAGE ENTRANCES ALONG ALLEY
		5	LANDSCAPE AREA, PLANTED WITH NATIVE TALL GROUNDCOVER / LOW SHRUBS
BM#501	CONODETE OUD	(	
48	CONCRETE CUR <u>&amp; GUTTER</u>		E: FINAL STREETSCAPE MATERIALS
41.05 WM 41.28	CONCRETE WAL*	AVE	E COORDINATED WITH MINNESOTA - BENNING ROAD GREAT STREETS AL PLAN, AS REQUIRED
V V			

0'	10'	20'	40'
SCA	LE: 1" = 2	0'-0"	

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LANDSCAPE SECTION B-B' SCALE: 1"=4'



LA-02: LANDSCAPE SECTIONS

3450 EADS STREET, NE

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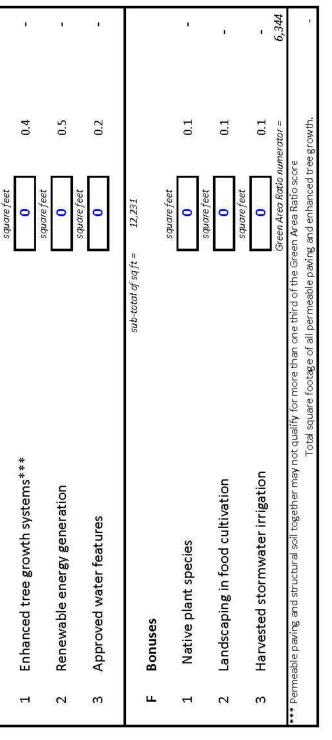
	Address 3450 Eads Street NF	1.584	Area Ratic	Green Area Ratio Scoresheet
		5017 839		MU-6
	DRAFT SCORESHEET		Multinliar	GAR Score
	Lot size (enter this value first) *	7,863	SCORE	0.355
	Landscape Elements	Square Feet	Factor	Total
A	Landscaped areas (select one of the following for each area)	area)		
Ħ	Landscaped areas with a soil depth < 24"	square feet 1,656	0.3	496.8
2	Landscaped areas with a soil depth≥ 24"	square feet	0.6	г
m	Bioretention facilities	square feet 546	0.4	218.4
B	Plantings (credit for plants in landscaped areas from Section A)			
H	Groundcovers, or other plants < 2' height	square feet	0.2	T
2	Plants ≥2' height at maturity - calculated at 9-sf per plant	Adjusted # of plants 137 12285	0.3	368.6
	<i>squarefeet</i> 546 Coveage for Shrubs, Perennials, and Grasses≥2' height	height		
		um planting size		
m	New trees with less than 40-foot canopy spread	# of trees 4 200	0.5	100.0
	- calculated at 50 sq ft per tree	+ J 7		
4	New trees with 40-foot or greater canopy spread - calculated at 250 sq ft per tree	H of trees 0	0.6	3
'n	Preservation of existing tree 6" to 12" DBH	# of trees 0 0	0.7	а
	- רפורתופובת פו לכת אל זו אבו נובב	# of trees		
٥	Preservation of existing tree 12" to 18" DBH - calculated at 600 sq ft per tree	0	0.7	T
7	Preservation of existing trees 18" to 24" DBH - calculated at 1300 sq ft per tree	H of trees 0	0.7	а
8	Preservation of existing trees 24" DBH or greater - calculated at 2000 sq ft per tree	# of trees 0	0.8	ĩ
თ	Vegetated wall, plantings on a vertical surface	square feet	0.6	ĩ
U	Vegetated or "green" roofs			
	Over at least 2" and less than 8" of growth medium	squarefeet	0.6	5,160.0
7	Over at least 8" of growth medium	0 sdrate] eet	0.8	2002
Δ	Permeable Paving***	÷		
П	Permeable paving over 6" to 24" of soil or gravel	o o o	0.4	F
7	Permeable paving over at least 24" of soil or gravel	0 sdrate1eet	0.5	T
ш	Other	sauarefeet		

\*REQUIRED GAR SCORE FOR ZONE MU-6 IS 0.3



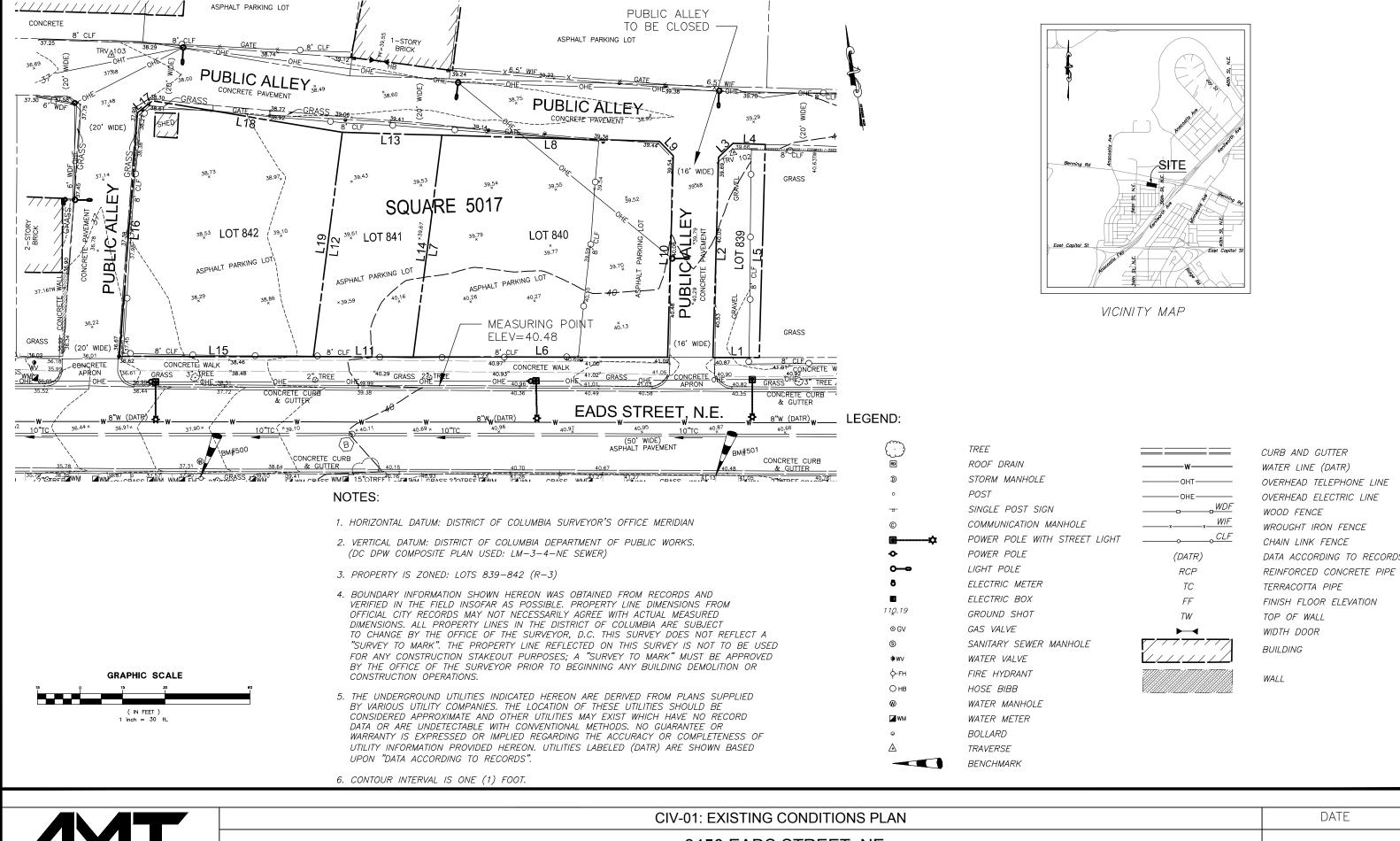
3450 EADS STREET, NE

LA-03: GAR SCORESHEET



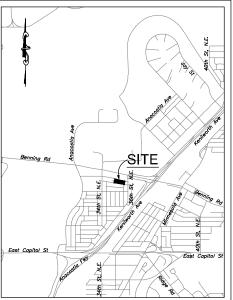
NOTE: DESIGN INTENT SHOWN ON THE DRAFT SCORESHEET HERE. FINAL GREEN AREA RATIO SCORESHEET TO BE DEVELOPED DURING DESIGN.

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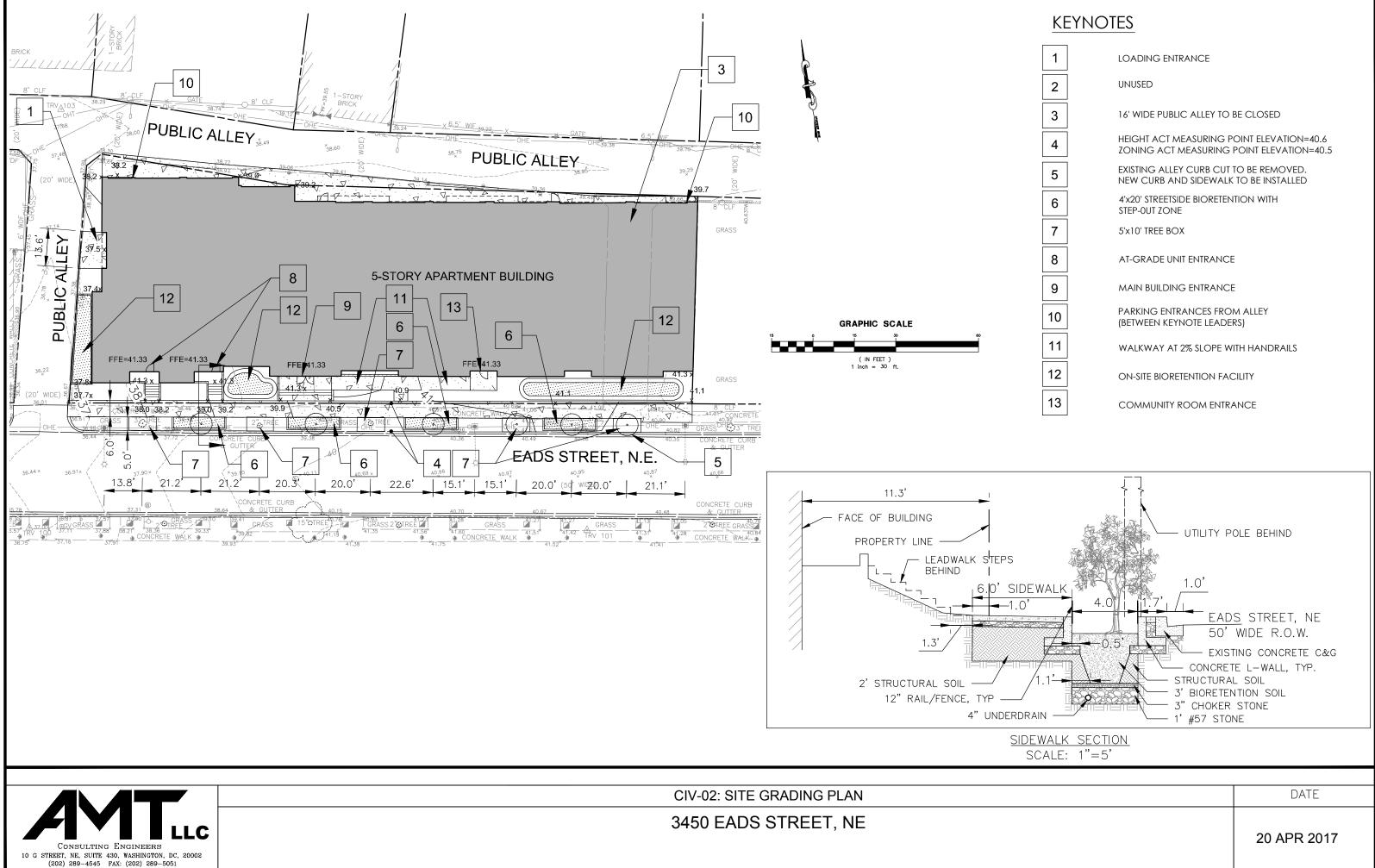




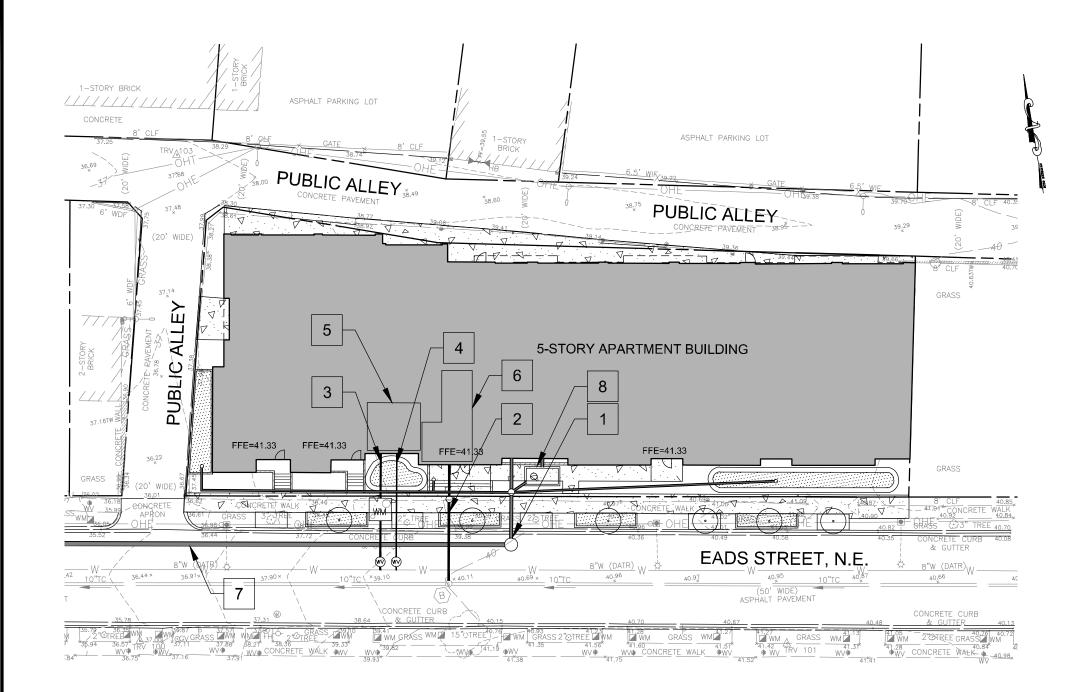
### 3450 EADS STREET, NE



DATE
20 APR 2017

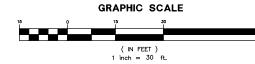


1	LOADING ENTRANCE
2	UNUSED
3	16' WIDE PUBLIC ALLEY TO BE CLOSED
4	HEIGHT ACT MEASURING POINT ELEVATION=40.6 ZONING ACT MEASURING POINT ELEVATION=40.5
5	EXISTING ALLEY CURB CUT TO BE REMOVED. NEW CURB AND SIDEWALK TO BE INSTALLED
6	4'x20' STREETSIDE BIORETENTION WITH STEP-0UT ZONE
7	5'x10' TREE BOX
8	AT-GRADE UNIT ENTRANCE
9	MAIN BUILDING ENTRANCE
10	PARKING ENTRANCES FROM ALLEY (BETWEEN KEYNOTE LEADERS)
11	WALKWAY AT 2% SLOPE WITH HANDRAILS
12	ON-SITE BIORETENTION FACILITY
13	COMMUNITY ROOM ENTRANCE



1

2





CIV-03: UTILITY PLAN

3450 EADS STREET, NE

### **KEYNOTES**

STORM CONNECTION TO NEW STORM DRAIN

SANITARY CONNECTION TO 10" SANITARY SEWER MAIN AT EXISTING MANHOLE

4" DOMESTIC WATER CONNECTION TO 8" WATER MAIN

6" FIRE CONNECTION TO 8" WATER MAIN

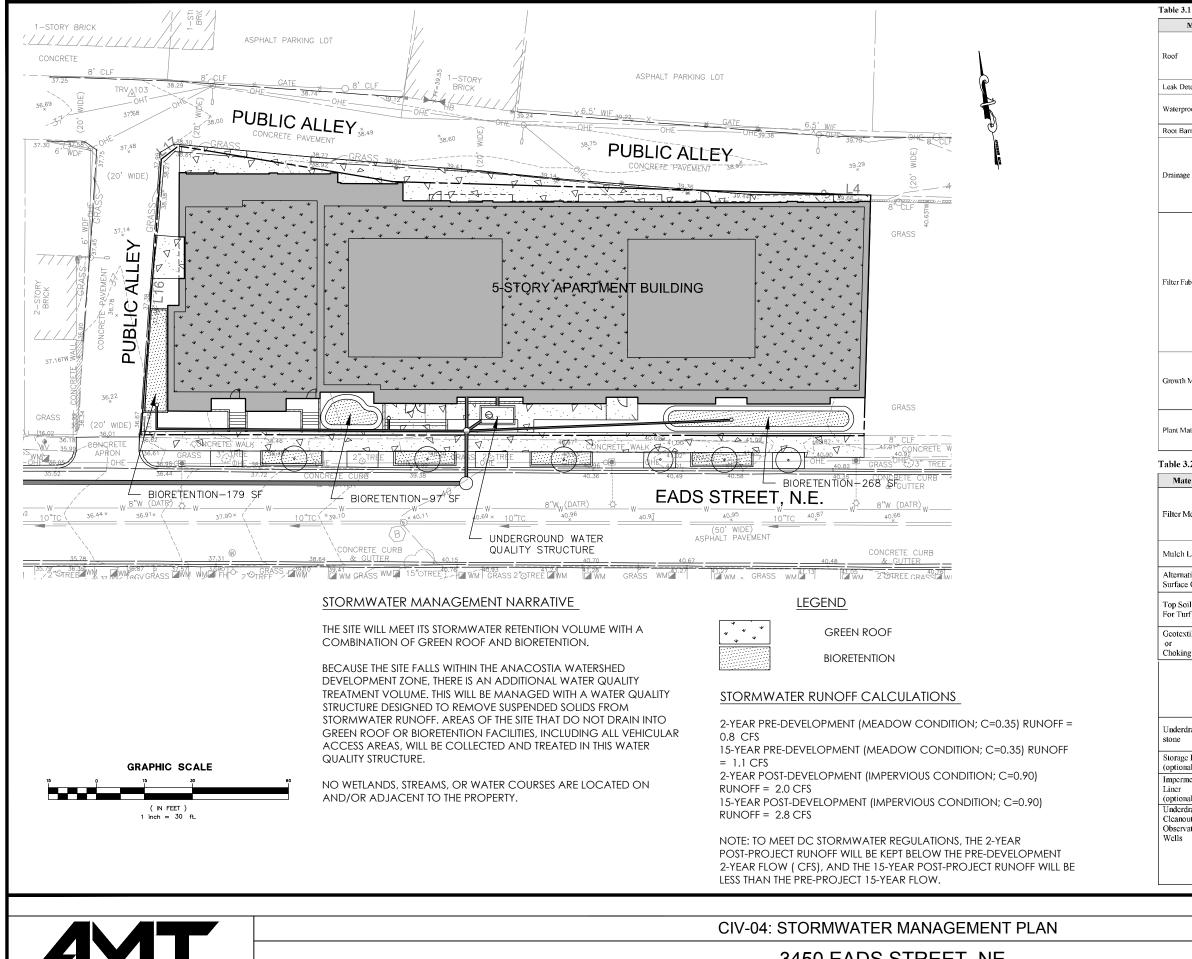
WATER ROOM

ELECTRICAL ROOM

NEW 15" RCPR STORM DRAIN TO CONNECT TO EXISTING STORM INFRASTRUCTURE IN 34TH STREET, NE

UNDERGROUND WATER QUALITY STRUCTURE

DATE
20 APR 2017



Consulting Engineers 10 G STREET, NE, SUITE 430, WASHINGTON, DC, 20002 (202) 289-4545 FAX: (202) 289-5051

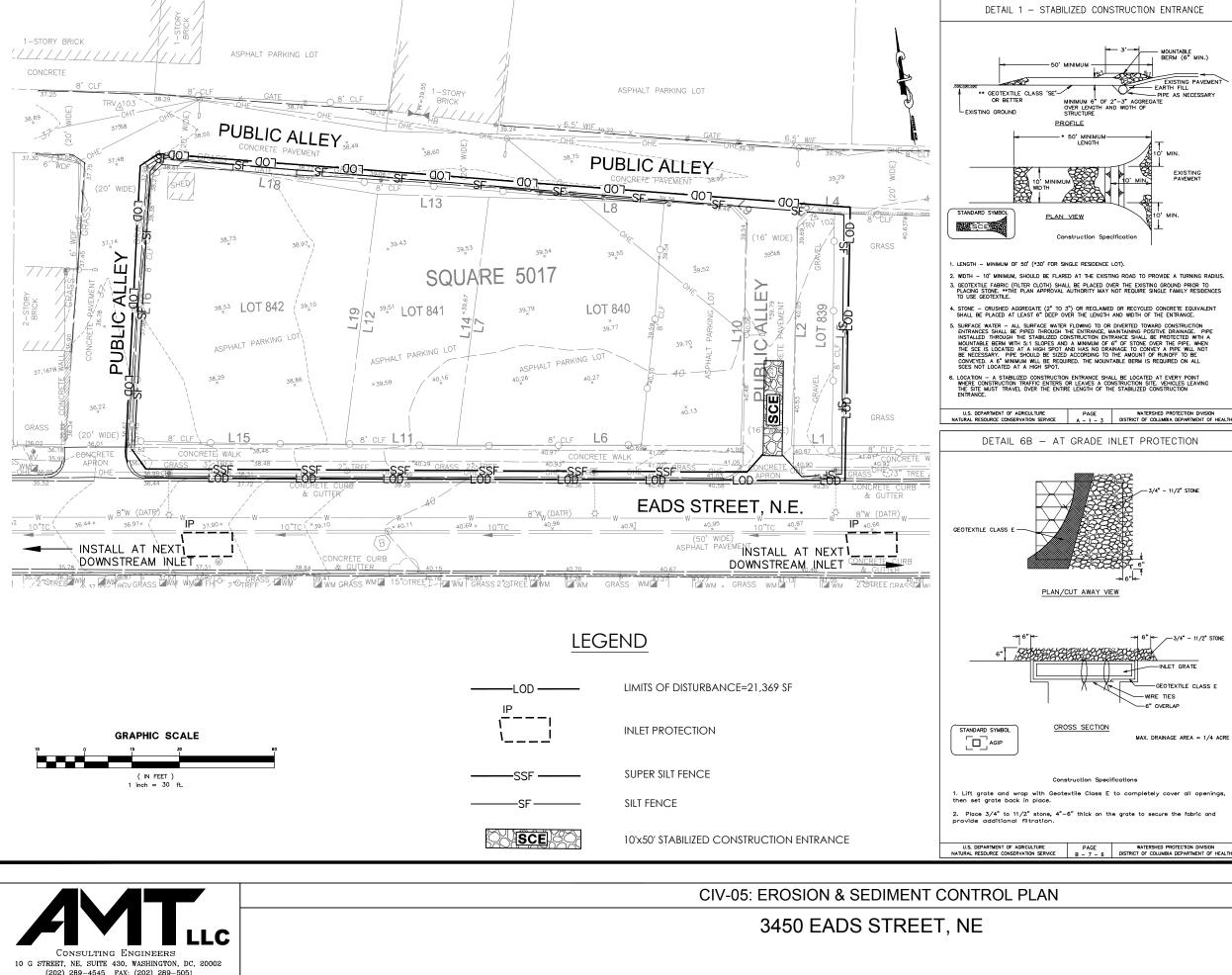
### 3450 EADS STREET, NE

3.1 Extensive Green Roof Material Specifications		
Material	Specification	
	Structural capacity must conform to ASTM E-2397-05, Practice for Determination of Live Loads and Dead Loads Associated with Vegetative (Green) Roof Systems. In addition, use standard test methods ASTM E2398-05 for Water Capture and Media Retention of Geocomposite Drain Layers for Green (Vegetated) Roof Systems and ASTME 2399-05 for Maximum Media Density for Dead Load Analysis.	
Detection System	Optional system to detect and locate leaks in the waterproof membrane.	
proof Membrane	See Chapter 6 of Weiler and Scholz-Barth (2009) for waterproofing options that are designed to convey water horizontally across the roof surface to drains or gutter. This layer may sometimes act as a root barrier.	
Barrier	Impermeable liner that impedes root penetration of the membrane.	
ıge Layer	Depth of the drainage layer is generally 0.25 to 1.5 inches thick for extensive designs. The drainage layer should consist of synthetic or inorganic materials (e.g., gravel, high density polyethylene (HDPE), etc.) that are capable of retaining water and providing efficient drainage. A wide range of prefabricated water cups or plastic modules can be used, as well as a traditional system of protected roof drains, conductors, and roof leaders. Designers should consult the material specifications as outlined in ASTM E2396 and E2398. Roof drains and emergency overflow must be designed in accordance with the District's construction code (DCMR, Title 12).	
Fabric	<ul> <li>Generally needle-punched, non-woven, polypropylene geotextile, with the following qualities:</li> <li>Strong enough and adequate puncture resistance to withstand stresses of installing other layers of the green roof. Density as per ASTM D3776 ≥ 8 oz/yd<sup>2</sup>. Puncture resistance as per ASTM D4833 ≥ 130 lb. These values can be reduced with submission of a Product Data Sheet and other documentation that demonstrates applicability for the intended use.</li> <li>Adequate tensile strength and tear resistance for long term performance.</li> <li>Allows a good flow of water to the drainage layer. Apparent Opening Size, as per ASTM D4751, of ≥ 0.06mm ≤ 0.2mm, with other values based on Product Data Sheet and other documentation as noted above.</li> <li>Allows at least fine roots to penetrate.</li> <li>Adequate resistance to soil home chemicals or microbial growth both during construction and after completion since the fabric will be in contact with moisture and possibly fertilizer compounds.</li> </ul>	
h Mcdia	70% to 80% lightweight inorganic materials and a maximum of 30% organic matter (e.g., well-aged compost). Media typically has a maximum water retention of approximately 30%. Material makeup and proof of maximum water retention of the growing media must be provided. Media must provide sufficient nutrients and water holding capacity to support the proposed plant materials. Determine acceptable saturated water permeability using ASTM E2366-05.	
Materials	Sedum, herbaceous plants, and perennial grasses that are shallow-rooted, low maintenance, and tolerant of direct sunlight, drought, wind, and frost. See ASTM E2400-06. Guide for Selection, Installation and Maintenance of Plants for Green (Vegetated) Roof Systems.	

### Table 3.22 Bioretention Material Specifications

aterial	Specification	Notes
Media	See Table 3.20	Minimum depth of 24 inches (18 inches for small-scale practices) To account for settling/compaction, it is recommended that 110% of the plan volume be utilized.
h Layer	Use aged, shredded hardwood bark mulch	Lay a 2 to 3-inch layer on the surface of the filter bed.
native ce Cover	Use river stone or pea gravel, coir and jute matting, or turf cover.	Lay a 2 to 3-inch layer of to suppress weed growth.
Soil 'urf Cover	Loamy sand or sandy loam texture, with less than 5% clay content, pH corrected to between 6 and 7, and an organic matter content of at least 2%.	3-inch tilled into surface layer.
extile ing Layer	An appropriate geotextile fabric that complies with AASHTO M-288 Class 2, latest edition, requirements and has a permeability of at least an	Can use in place of the choking layer where the depth of the practice is limited. Geotextile fabric may be used on the sides of
	order of magnitude higher (10x) than the soil subgrade permeability must be used	bioretention areas, as well.
	Lay a 2 to 4 inch layer of choker stone (e.g., typical underdrain stone.	ly No.8 or No.89 washed gravel) over the
rdrain	1-inch diameter stone must be double-washed and clean and free of all fines (e.g., ASTM D448 No. 57 or smaller stone).	At least 2 inches above and below the underdrain.
ge Layer onal)	To increase storage for larger storm events, chambers, perforated pipe, stone, or other acceptable material can be incorporated below the filter media layer	
rmeable mal)	Where appropriate, use a thirty mil (minimum) PVC Geomembrane liner	
rdrains, nouts, and rvation s	Use 4- or 6-inch rigid schedule 40 PVC pipe, or equivalent corrugated HDPE for small bioretention BMPs, with 3/8-inch perforations at 6 inches on center. Multiple underdrains are necessary for bioretention areas wider than 40 feet, and each underdrain must be located no more than 20 feet from the next pipe or the edge of the bioretention.	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 or to daylight in a stabilized conveyance. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface.

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### DETAIL 4 - SILT FENCE 36" MINIMUM LENGTH FENCE POST, DRIVEN A MINIMUM OF 16" INTO GROUND MUM CENTER TO 5 MAX MOUNTABLE BERM (6" MIN.) - 16" MINIMUM HEIGHT OF GEOTEXTILE CLASS F 8" MINIMUM DEPTH IN EXISTING PAVEMENT - EARTH FILL - PIPE AS NECESSAR FLOW FLOW 36" MINIMUM FENCE POST LENGTH PERSPECTIVE VIEW FILTER CLOTH FENCE POST SECTION MINIMUM 20" ABOVE GROUND MIN. EXISTING PAVEMENT EMBED GEOTEXTILE CLASS F A MINIMUM OF 8" VERTICALLY - FENCE POST DRIVEN A MINIMUM OF 16" INTO TOP VIEW POSTS CROSS SECTION SECTION B SECTION A STAPLE STANDARD SYMBOL STAPLE \_\_\_\_\_ SF \_\_\_\_\_ JOINING TWO ADJACENT SILT FENCE SECTIONS CONSTRUCTION SPECIFICATIONS 1. FENCE POSTS SHALL BE A MINIMUM OF 36° LONG DRIVEN 16° MINIMUM INTO THE GROUND, WOOD POSTS SHALL BE 11/2° X11/2° SQUARE (MINIMUM) CUT, OR 13/4° DIAMETER (MINIMUM) ROUND AND SHALL BE OF SQUAD QUALITY HAROMOOD. STEEL POSTS MILL BE STANDARD T OR U SECTION WEIGHTING NOT LESS THAN 1.00 POND PER LINEAR FOOT 2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F: TENSILE STRENGTH 50 LBS/IN (MIN.) TEST: ASTM D-4595 TENSILE MODULUS 20 LBS/IN (MIN.) TEST: ASTM D-4595 FLOW RATE 0.3 GAL/FT /MINUTE (MAX.) TEST: ASTM D-5141 FILTERING EFFICIENCY 75% (MIN.) TEST: ASTM D-5141 WHERE ENDS OF GEOTEXTILE FABRIC COME STAPLED TO PREVENT SEDIMENT BYPASS. THEY SHALL BE OVERLAPPED, FOLDED AND 4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 30% OF THE FABRIC. PAGE WATERSHED PROTECTION DIMSION B - 5 - 3 DISTRICT OF COLUMBIA DEPARTMENT OF HEALT U.S. DEPARTMENT OF AGRICULTURE DETAIL 5 - SUPER SILT FENCE NOTE: FENCE POST SPACING SHALL NOT EXCEED 10 CENTER TO CENTER 10' MAXIMUM MINIMUM 18.118.118.118.11 GROUND SURFACE K-71K-71K FLOW 36" MINIMUM FLOW 21/2" DIAMETER GALVANIZED OR ALUMINUM POSTS CHAIN LINK FENC WITH 1 LAYER OF FILTER CLOTH CHAIN LINK FENCING-FILTER CLOTH-MINIMUM TRANK 16" MIN. 1ST LAYER OF FILTER CLOTH \* EMBED FILTER CLOTH 8"-STANDARD SYMBOL \* IF MULTIPLE LAYERS ARE REQUIRED TO ATTAIN 42" — SSF — -3/4" - 11/2" STONE CONSTRUCTION SPECIFICATIONS 1. FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6' FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6' LENGTH POSTS. -GEOTEXTILE CLASS E 2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WTH WRE TIES. THE LOWER TENSION WRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON ENDS OF THE FENCE. 5. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK THE TOP AND MID SECTION. MAX. DRAINAGE AREA = 1/4 ACRE 4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY $6^{*}$ and FOLDED. 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 30% OF FENCE HEIGHT . FILTER CLOTH SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE THES OR STAPLES AT TOP AI MID SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F: TENSILE STRENGTH 50 LBS/IN (MIN.) TEST: ASTM D-4595 TEST: ASTM D-4595 TENSILE MODULUS 20 LBS/IN (MIN.) FLOW RATE 0.3 GAL/FT /MINUTE (MAX.) TEST: ASTM D-5141 FILTERING EFFICIENCY 75% (MIN.) TEST: ASTM D-5141 U.S. DEPARTMENT OF AGRICULTURE PAGE WATERSHED PROTECTION DIVISION NATURAL RESOURCE CONSERVATION SERVICE B = 6 = 3 DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

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20 APR 2017







METAL CORNICE





METAL CANOPY



ALUMINIUM AND GLASS FOR MAIN BUILDING ENTRY



NORTH ELEVATION

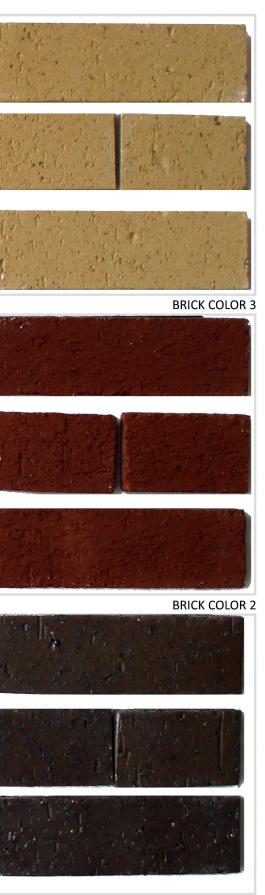


Neighborhood Development Company



# EADS STREET MULTIFAMILY APARTMENTS

Material Board



BRICK COLOR 1