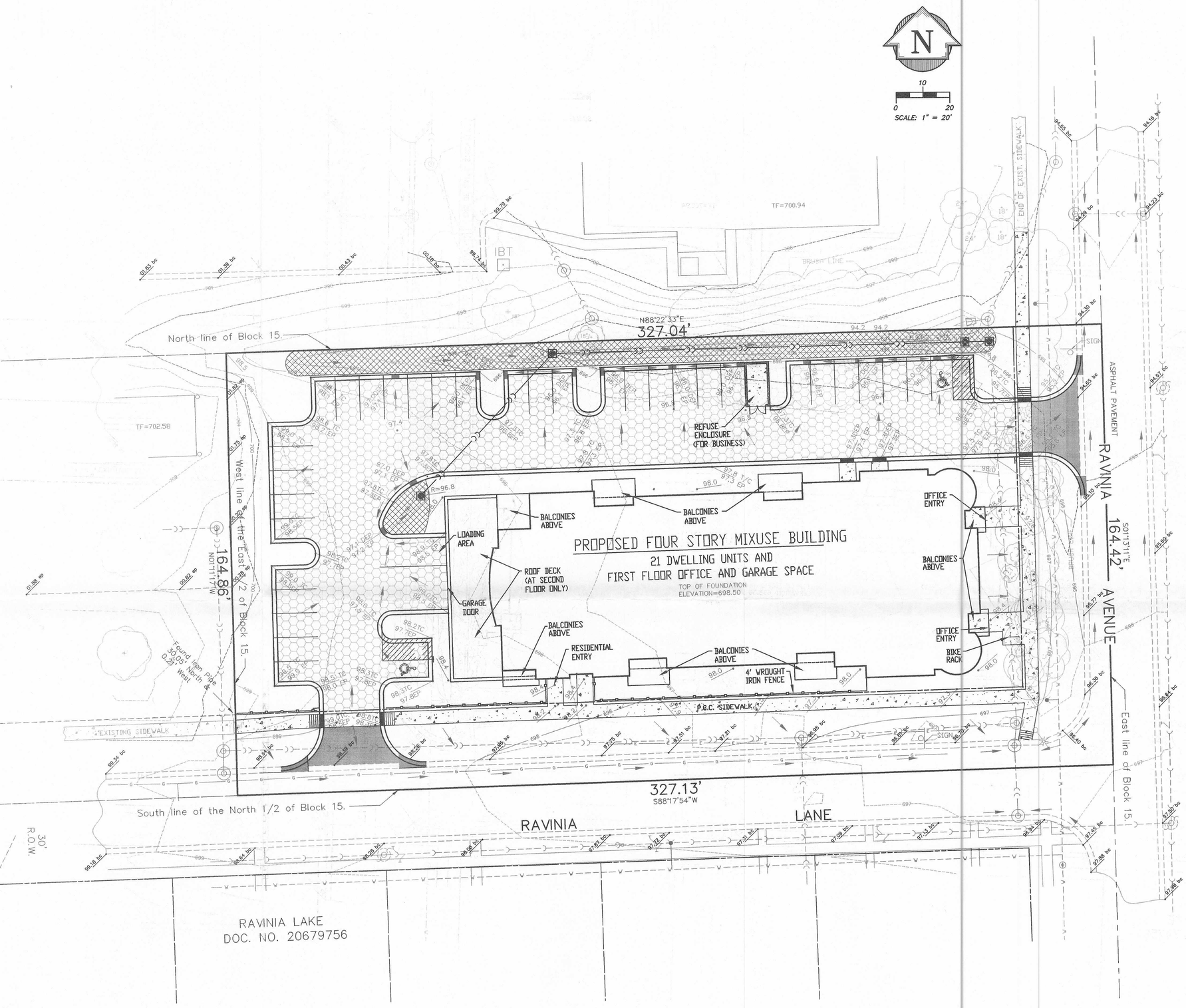

2.1 SOIL MATERIALS

Bioswale Soil

A naturally occurring or constructed loamy sand or sandy loam (USDA textural class) shall be approved by field inspection at the harvest site by the Certified Professional Soil Scientist or Classifier. Soil shall not be mixed, transported, or graded if moisture content exceeds 75 percent of field capacity or if any part of the soil is frozen. Clay content shall not exceed 15%.

Bioswale Soil Chemical and Nutrient Data

Soil chemical conditions shall meet the following ranges.

Constituent	*Range*
pH	5.5-7.5
Organic Matter	5 -12 percent (dry weight)
Phosphorus (Strong Bray)	< 40 ppm
Potassium	200 - 600 ppm
Sodium	< 250 ppm
Soluble Salts	< 1.5dS/m
SAR	< 5

Provide a minimum of one soil sample with the accompanying soil test report per 500 cubic yards of material required from samples obtained randomly throughout the source field location or stockpile.

Naturally occurring soil may be amended at the direction of the Landscape Architect or Soil Scientist to meet the nutrient or chemical specifications. Soil shall not be amended to meet the physical characteristics of this specification.

Constructed Soils

Constructed soils shall have an approximate ratio of the following materials

Sand (FA-2 or approved equal)	1.5 parts
Topsoil (clay content less than 25%)	1.0 parts
Composted Coarse Organic Matter	1.5 parts

Soil shall be amended to meet the physical and chemical characteristics of the natural soil specification.

Soil Conditions and Preparation

1. Planting soil shall have a dry density in situ not to exceed 100 lbs per cubic foot. Coefficient of Uniformity shall be 2.50 or greater. Soil shall meet organic matter characteristics described in Section 2.2.
2. Planting soil shall be uniform in color and texture, containing no gray clay and free from grass roots, sod, weeds, rocks, stiff clay, clods, or any other contaminants.
3. Soil pH shall range shall be between 5.5 and 7.0. Soil shall be amended with acidifiers approved by the Landscape Architect to meet this requirement, as appropriate.
4. Soil shall not be mixed or worked while wet.

2.2 ORGANIC MATTER AMENDMENT REQUIREMENTS

All compost materials shall be stable, mature, coarse humus-like materials produced from aerobic decomposition of biosolids from one or more of following sources: yard waste, stabilized municipal biosolids, agricultural residuals, hardwood and coniferous debarking waste, brewing solids waste; source separated municipal waste and/or paper pulping waste.

Compost shall not contain any toxic materials including PCBs or Dioxin and must meet EPA Type I organic waste material requirements. Compost must not exceed any 503 human contact standard maximums and must be certified to comply with all SW-846 testing protocols.

Compost maturity must demonstrated for every 250 cubic yards by meeting the Solvita requirements for compost maturity by having a test value greater than or equal to 7.

The compost shall be dark brown to black in color, and capable of supporting plant growth, with appropriate fertilizer amendments. Compost shall have the following chemical characteristics:

Constituent	*Range*
pH	5.5-8.5
Soluble Salts	< 2.0 dS/m
C:N	10:1 to 35:1
OM	Min. 50%

END OF SECTION

BIOSWALE SEED LIST:

Scientific Name	*Common Name*	*Quantity Ordered*	*Units*
Alisma subcordatum	common water plantain	0.054	lb per ac
Avena sativa	oats	17.589	lb per ac
Carex comosa	bristly sedge	0.455	lb per ac
Carex lurida	bottlebrush sedge	1.589	lb per ac
Carex sparganioides v. cephaloidea	rough clustered sedge	1.232	lb per ac
Carex vulpinoidea	brown fox sedge	0.152	lb per ac
Elymus virginicus	Virginia wild rye	4.357	lb per ac
Glyceria striata	fowl manna grass	0.080	lb per ac
Iris virginica	blue flag	1.357	lb per ac
Lobelia cardinalis	cardinal flower	0.045	lb per ac
Lobelia siphilitica	great blue lobelia	0.036	lb per ac
Lolium multiflorum	annual rye grass	3.357	lb per ac
Rudbeckia subtomentosa	sweet black-eyed susan	0.080	lb per ac
Sagittaria latifolia	common arrowhead	0.098	lb per ac
Zizia aurea	golden alexanders	0.321	lb per ac

BOARD APPROVED
CASE NO. 2008-0350
DATE 6-2-08
W/CONDITIONS
W/O CONDITIONS ✓

NOTES:

1.) SEE LANDSCAPE PLANS (BY OTHERS) FOR ALL TRADITIONAL (NON-BIOSWALE) PLANTINGS.

2.) THIS PLAN SHALL BE USED FOR PERMEABLE PAVEMENT AND BIO-SWALES ONLY. FOR ALL GRADING, UTILITY, AND STORM SEWER INFORMATION, SEE SITE GRADING AND UTILITY PLAN (SHEET 4).

LEGEND

- PERMEABLE PAVEMENT SECTION (SEE SHEET 6 FOR DETAIL)
- DRIVEWAY APRON PAVEMENT SECTION (SEE SHEET 3 FOR DETAIL)
- LOCATION OF BIO-SWALE SOIL & SEED MIX (0.07 ACRES)

RECEIVED APR 07 2008

BURKE ENGINEERING CORPORATION
Civil Engineer Consultants - Planners - Land Surveyors
18330 Distinctive Drive Orland Park, Illinois 60467
Phone: (708) 326-4000 Fax: (708) 326-4050
PROFESSIONAL DESIGN FIRM NO. 184-001799 E-MAIL: @BURKEENGINEERING.COM

DATE		
	H	
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	F	
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	D	
03-20-08	C	REVISED BIOSWALE SEED MIX PER VILLAGE LANDSCAPE REVIEW
11-13-07	B	REVISED PER VILLAGE REVIEW OF 11-07-07
	A	

BILTMORE TOWERS
BIO-SWALE PLANTING PLAN
BLACKWATER CONSTRUCTION
15774 S.LAGRANGE ROAD SUITE386
ORLAND PARK, IL 60462

Topo By	BEC
Plan By	SW
Checked By	JDH
Scale:	1"=20'
Date:	10-19-07
Sheet:	7 of 8
	ENGINEERING
Job No.	07-146

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